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MODEL SEWER USE BY-LAW

- A Model By-Law to Control Waste Discharges to Municipal Sewers
- Sewer Use Model By-Law Appendix/Guidance Manual
- Compendium of Public Comments on Model Sewer Use By-Law and Ministry Responses

AUGUST 1988

Ontario
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Résumé

Un modèle d'arrêté municipal sur l'utilisation des égouts a été rédigé par un comité d'examen interorganismes, en collaboration avec Environnement Canada et la Municipal Engineers Association. Ce modèle établit les substances qu'il est interdit de rejeter dans les effluents et, pour les autres, les seuils précis à ne pas dépasser. Les municipalités pourront s'en inspirer pour rédiger un arrêté qui leur permette de protéger à la fois leur station d'épuration et l'environnement. Le modèle propose aussi un plan de mise en oeuvre et d'application de l'arrêté. Cette formule, si elle est retenue, aurait l'avantage de nous aider à contrôler efficacement et de manière uniforme les déversements dans les égouts de l'Ontario.

A MODEL BY-LAW
TO CONTROL
WASTE DISCHARGES
TO
MUNICIPAL SEWERS

Prepared by a Committee represented by:

The Ontario Ministry of the Environment

Environment Canada

The Ontario Municipal Engineers Association

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BY-LAW NO.

OF THE CORPORATION OF THE OF

BEING A BY-LAW (set out purpose)

pursuant to (set out statutory authority)

NOW THEREFORE THE COUNCIL of the CORPORATION

of the of enacts as

follows:

SECTION 1

DEFINITIONS

1. In this by-law:

(a) "acute hazardous waste chemical" means a material which is an acute hazardous waste chemical within the meaning of Ontario Regulation 309 made under the Environmental Protection Act (Ontario);

(b) "authorized representative of the owner or operator" means
(i) A principal executive officer of at least the level of vice president, if the owner or operator is a corporation; or
(ii) A general partner or proprietor if the owner or operator is a partnership or proprietorship, respectively; or
(iii) A duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the sewage discharge originates;

(c) "biochemical oxygen demand" means carbonaceous oxygen demand (biochemical) as determined by Method 507 in Standard Methods when an inhibiting chemical has been added to prevent ammonia oxidation;

(d) "blowdown" means the discharge of recirculating noncontact cooling water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentrations in amounts exceeding limits established by best engineering practices;

(e) "combined sewer" means a sewer intended to function simultaneously as a storm sewer and a sanitary sewer;

(f) "commercial waste chemical" means a material which is a commercial waste chemical within the meaning of Ontario Regulation 309 made under the Environmental Protection Act (Ontario);

(g) "composite sample" means a sample which is composed of a series of grab samples taken at intervals during the sampling period;

(h) "cyanide (total)" means cyanide as determined by Methods 412B plus one of Method 412C or 412D in Standard Methods;

(i) "de minimis dose" means a dose of radiation to an individual of .05 millisieverts per year;

(j) "de minimis waste" means any waste radioactive material that will not result in a dose of radiation exceeding the de minimis dose regardless of the quantity of the material or how it is used or managed;

(k) "fuels" includes (i) any ignitable liquid intended for use as a fuel with a flash point less than 61° Celsius as determined by one of the methods in Ontario Regulation 309 made under the Environmental Protection Act (Ontario) and (ii) gasoline, naptha, diesel fuel or fuel oil;

(l) "grab sample" is an aliquot of the flow being sampled taken at one particular time and place;

(m) "hauled sewage" means waste removed from a cesspool, a septic tank system, a privy vault or privy pit, a chemical toilet, a portable toilet, a sewage holding tank or any other sewage system of a type regulated under Part VII of the Environmental Protection Act (Ontario);

(n) "hazardous industrial waste" means a material which is a hazardous industrial waste within the meaning of Ontario Regulation 309 made under the Environmental Protection Act (Ontario);

(o) "hazardous waste chemical" means a material which is a hazardous waste chemical within the meaning of Ontario Regulation 309 made under the Environmental Protection Act (Ontario);

(p) "ignitable waste" means a material which is an ignitable waste within the meaning of Ontario Regulation 309 made under the Environmental Protection Act (Ontario);

(q) "industrial" shall mean of or pertaining to industry, manufacturing, commerce, trade, business, or institutions as distinguished from domestic or residential;

(r) "industrial process area" means any industrial building, property or land area which during manufacturing, processing or storage comes into direct contact with any raw material, intermediate product, finished product, byproduct, or waste product;

(s) "Kjeldahl Nitrogen" means organic nitrogen as determined by one of Method 420A or 420B in Standard Methods;

(t) "matter" includes any solid, liquid or gas;

(u) "municipality" means The Corporation of the _____ of _____ or its designated representative;

(v) "noncontact cooling water" means water which is used to reduce temperature for the purpose of cooling and which does not come into direct contact with any raw material, intermediate product other than heat, or finished product;

(w) "once-through cooling water" means noncontact cooling water that has been circulated once through the cooling device;

(x) "owner" or "operator" means the owner or operator of any facility or activity subject to the provisions of this by-law;

(y) "pathological waste" means a material which is a pathological waste within the meaning of Ontario Regulation 309 made under the Environmental Protection Act (Ontario) or any material which may be designated in writing by the Chief Medical Officer of Health (Ontario);

(z) "PCB" means any monochlorinated or poly-chlorinated biphenyl or any mixture of these or mixture that contains one or more of them;

(aa) "PCB waste" means a PCB waste within the meaning of Ontario Regulation 148/86 made under the Environmental Protection Act (Ontario);

(bb) "person" includes an individual, association, partnership, corporation, municipality, Provincial or Federal agency, or an agent or employee thereof;

(cc) "pesticides" means a pesticide regulated under the Pesticides Act (Ontario);

(dd) "pH" means the logarithm to the base 10 of the reciprocal of the concentration of hydrogen ions in moles per litre of solution;

(ee) "phenolic compounds" means those derivatives of aromatic hydrocarbons which have a hydroxyl group directly attached to the ring as determined by one of Method 510B or 510C in Standard Methods;

(ff) "phosphorus" means total phosphorus as determined by both Method 424C plus one of Method 424D, 424E, 424F, or 424G in Standard Methods;

(gg) "reactive waste" means a material which is a reactive waste within the meaning of Ontario Regulation 309 made under the Environmental Protection Act (Ontario);

(hh) "sanitary sewer" means a sewer for the collection and transmission of domestic, commercial, institutional and industrial sewage or any combination thereof;

(ii) "severely toxic material" means any material listed in Schedule 3 of Ontario Regulation 309 made under the Environmental Protection Act (Ontario);

(jj) "sewage" means any liquid waste containing animal, vegetable or mineral matter in solution or in suspension, except uncontaminated water;

(kk) "sewage works" means any works for the collection, transmission, treatment or disposal of sewage, or any part of such works;

(ll) "SIC code" means Standard Industrial Classification Code contained in either the Standard Industrial Classification Manual published by the Minister of Supply and Services Canada, 1980 (Canadian SIC) or the Standard Industrial Classification Manual published by the Executive Office of the President, Office of Management and Budget, 1972 (U.S. SIC);

(mm) "solvent extractable matter of animal or vegetable origin" means grease and oil as determined by one of Methods 503A, 503B, 503C, or 503D in Standard Methods;

(nn) "solvent extractable matter of mineral or synthetic origin" means grease and oil as determined by Method 503E in Standard Methods;

(oo) "Standard Methods" means a procedure set out in Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, American Water Works Association and Water Pollution Control Federation, 16th Edition (1985), current at the date of testing, or a procedure published by the Ontario Ministry of the Environment as a standard method or the equivalent of a standard method;

(pp) "storm sewer" means a sewer for the collection and transmission of uncontaminated water, stormwater, drainage from land or from a watercourse or any combination thereof;

(qq) "stormwater" means water from rainfall or other natural precipitation or from the melting of snow or ice;

(rr) "suspended solids" means solid matter in or on a liquid which matter is removable by filtering and dried at 103-105°C as determined by Method 209C in Standard Methods;

(ss) "uncontaminated water" means water to which no matter has been added as a consequence of its use, or to modify its use, by any person;

(tt) "waste disposal site leachate" means leachate from any waste disposal site; and

(uu) "waste radioactive materials" means any waste material exhibiting the property of spontaneous disintegration of atomic nuclei usually with the emission of penetrating radiation or particles.

SECTION 2

DISCHARGES TO SANITARY SEWERS
DISCHARGES TO COMBINED SEWERS

2(1) No person shall discharge or deposit or cause or permit the discharge or deposit of matter of a kind listed below into or in land drainage works, private branch drains or connections to any sanitary sewer or combined sewer:

1. matter of any type or at any temperature or in any quantity which may be or may become a health or safety hazard to a sewage works employee, or which may be or may become harmful to a sewage works, or which may cause the sewage works effluent to contravene any requirement by or under the Ontario Water Resources Act or the Environmental Protection Act (Ontario), or which may cause the sludge from sewage works to fail to meet the criteria relating to contaminants for spreading the sludge on agricultural lands under Ontario's Guidelines for Sewage Sludge Utilization on Agricultural Lands (as revised January, 1986) unless the person has been advised in writing by the operator of the sewage treatment works that the sludge from the sewage treatment works will never be used on agricultural lands, or which may interfere with the proper operation of a sewage works, or which may impair or interfere with any sewage treatment process, or which is or may result in a hazard to any person, animal, property or vegetation and;

2. without limiting the generality of the foregoing, any of the following:

   (a) Solid or viscous substances in quantities or of such size as to be capable of causing obstruction to the flow in a sewer, including but not limited to ashes, bones, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, animal guts or tissues, paunch manure, and whole blood.

   (b) Sewage that may cause an offensive odour to emanate from a sewage works, and without limiting the generality of the foregoing, sewage containing hydrogen sulphide, carbon disulphide, other reduced sulphur compounds, amines or ammonia in such quantity that may cause an offensive odour.

   (c) Except in the case of discharge into a combined sewer, stormwater, water from drainage of roofs or land, water from a watercourse or uncontaminated water.

   (d) Water other than stormwater that has originated from a source separate from the water distribution system of the municipality.

   (e) Sewage or uncontaminated water at a temperature greater than 65 degrees Celsius.

(f) Sewage having a pH less than 5.5 or greater than 9.5.

(g) Sewage containing more than 15 milligrams per litre of solvent extractable matter of mineral or synthetic origin.

(h) Sewage containing more than 150 milligrams per litre of solvent extractable matter of animal or vegetable origin.

(i) Sewage in which the biochemical oxygen demand exceeds 300 milligrams per litre.

(j) Sewage containing more than 350 milligrams per litre of suspended solids.

(k) Sewage containing more than 10 milligrams per litre of phosphorus.

(l) Sewage containing more than 100 milligrams per litre of Kjeldahl nitrogen.

(m) Sewage containing more than 1 milligram per litre of phenolic compounds.

(n) Sewage which consists of two or more separate liquid layers.

(o) Sewage containing dyes or colouring materials which pass through a sewage works and discolour the sewage works effluent.

(p) Sewage containing any of the following in excess of the indicated concentrations;

1500 milligrams/litre

Chlorides expressed as Cl
Sulphates expressed as SO_4

50 milligrams/litre

Aluminum expressed as Al
Iron expressed as Fe

10 milligrams/litre

Fluorides expressed as F

5 milligrams/litre

Antimony expressed as Sb
Bismuth expressed as Bi
Chromium expressed as Cr
Cobalt expressed as Co
Lead expressed as Pb
Manganese expressed as Mn
Molybdenum expressed as Mo
Selenium expressed as Se
Silver expressed as Ag
Tin expressed as Sn
Titanium expressed as Ti
Vanadium expressed as V

3 milligrams/litre

Copper expressed as Cu
Nickel expressed as Ni
Zinc expressed as Zn

2 milligrams/litre

Cyanide (total) expressed as CN

1 milligram/litre

Arsenic expressed as As
Cadmium expressed as Cd

0.1 milligrams/litre

Mercury expressed as Hg

(q) The following materials or sewage containing any of the following in any amount;

Fuels
PCBs
Pesticides
Severely Toxic Materials
Waste Radioactive Materials

(r) The following materials or sewage containing any of the following in any amount;

Hauled Sewage
Waste Disposal Site Leachate

(s) The following hazardous wastes in any amount;

Acute Hazardous Waste Chemicals
Hazardous Industrial Wastes
Hazardous Waste Chemicals
Ignitable Wastes
Pathological Wastes
PCB Wastes
Reactive Wastes

(2) In determining whether the limit with respect to any matter prescribed in subsection 2(1) is contravened, the volume of any water that has been added for the purpose of enabling the limit to be met and of any storm sewer discharges to a combined sewer shall be disregarded for the purposes of calculating whether the limit has been met so that compliance with the limit cannot be attained by dilution.

(3) Subclauses 2(1) 2.(b) and 2(1) 2.(s) do not apply to prevent the discharge of human waste.

(4) Subclause 2(1) 2.(d) does not apply to prevent the discharge of:

(a) Water taken in an amount greater than 50,000 litres per day from a separate source when the owner or operator of the premises has a Permit To Take Water issued by the Ontario Ministry of the Environment and a copy of such permit has been provided to the municipality, or

(b) Water taken in an amount less than 50,000 litres per day from a separate source when the owner or operator of the premises has provided the municipality with the following information:

(i) Address of premises where the water is being used;
(ii) Location of the water source; and
(iii) Amount of water being taken.

(5) Subclause 2(1) 2.(q) does not apply to prevent the discharge of waste radioactive materials where they are being discharged in accordance with a licence from the Atomic Energy Control Board and a copy of the licence has been provided to the municipality or to the discharge of de minimis waste.

(6) Subclause 2(1) 2.(q) does not apply to prevent the discharge of PCBs when,

(a) the owner or operator of the premises has a certificate of approval relating to the premises from the Ontario Ministry of the Environment which expressly allows the discharge or written approval from the Director of the Ontario Ministry of Environment which expressly authorizes the discharge from the premises;

(b) the owner or operator of the premises has written approval from the municipality which expressly authorizes the discharge from the premises;

(c) the discharge contains a concentration of less than 5 micrograms per litre of PCBs; and

(d) a copy of the certificate of approval or written authorization referred to in clause (a) has been provided to the municipality.

(7) Subclause 2(1) 2.(r) does not apply to prevent the discharge of waste disposal site leachate when,

(a) the waste disposal site leachate is being discharged pursuant to a certificate of approval or order relating to the premises under the Environmental Protection Act (Ontario) or the Ontario Water Resources Act which expressly allows the discharge;

(b) the owner or operator of the premises has written approval from the municipality which expressly authorizes the discharge from the premises; and

(c) a copy of the certificate of approval or written authorization referred to in clause (a) has been provided to the municipality.

(8) Subclause 2(1) 2.(r) does not apply to prevent the discharge of hauled sewage when,

(a) the carrier of the hauled sewage is a waste transportation system operating under a licence issued under Part VII of the Environmental Protection Act (Ontario);

(b) the carrier has written approval from the municipality which includes a specified time and location for the discharge; and

(c) the discharge occurs at the approved time and location.

(9) Subclause 2(1) 2.(s) does not apply to prevent the discharge of pathological waste that has been decontaminated prior to discharge when,

(a) the owner or operator of the premises has a certificate of approval from the Ontario Ministry of the Environment which expressly allows the discharge or written approval from the Director of the Ontario Ministry of the Environment which expressly authorizes the discharge from the premises;

(b) the owner or operator of the premises has written approval from the municipality which expressly authorizes the discharge from the premises; and

(c) a copy of the certificate of approval or written authorization referred to in clause (a) has been provided to the municipality.

SECTION 3

DISCHARGES TO STORM SEWERS

3(1) No person shall discharge or deposit or cause or permit the discharge or deposit of matter of a kind listed below into or in land drainage works, private branch drains or connections to any storm sewer,

1. matter of any type or at any temperature or in any quantity which may:

   (a) interfere with the proper operation of a storm sewer;

   (b) obstruct a storm sewer or the flow therein;

   (c) result in a hazard to any person, animal, property or vegetation;

   (d) impair the quality of the water in any well, lake, river, pond, spring, stream, reservoir or other water or watercourse; or

   (e) result in the contravention of an approval, requirement, direction or other order under the Ontario Water Resources Act or the Environmental Protection Act (Ontario) with respect to the storm sewer or its discharge; and

2. without limiting the generality of the foregoing, any of the following:

   (a) water at a temperature greater than 40° Celsius;

   (b) water having a pH less than 6.0 or greater than 9.0;

   (c) water containing more than 15 milligrams per litre of suspended solids;

   (d) water containing dyes or colouring material which discolour the water;

   (e) water containing solvent extractable matter of animal or vegetable origin or of mineral or synthetic origin which causes a visible film, sheen or discolouration on the water surface;

   (f) water containing any of the following in excess of the indicated concentrations:

200 micrograms/litre
Chromium expressed as Cr

50 micrograms/litre

Zinc expressed as Zn
Lead expressed as Pb
Nickel expressed as Ni

10 micrograms/litre

Copper expressed as Cu

1 microgram/litre

Cadmium expressed as Cd
Mercury expressed as Hg

200 per 100 millilitres

Fecal coliforms

(g) the following matter in any amount:

Sewage
Once-through cooling water
Blowdown

(h) the following materials in any amount:

Automotive or Machine Oils and Greases
Fuels
Paints and Organic Solvents
PCBs
Pesticides
Severely Toxic Materials
Waste Disposal Site Leachate
Waste Radioactive Materials

(i) the following hazardous wastes in any amount:

Acute Hazardous Waste Chemicals
Hazardous Industrial Wastes
Hazardous Waste Chemicals
Ignitable Wastes
Pathological Wastes
PCB Wastes
Reactive Wastes

3(2) Subclause 3(1) 2.(g) does not apply to prevent the discharge of once-through cooling water or blowdown when,

(a) the once-through cooling water or blowdown is being discharged pursuant to a certificate of approval or order relating to the premises under the Environmental Protection Act (Ontario) or the Ontario Water Resources Act which expressly allows the discharge;

(b) the owner or operator of the premises has written approval from the municipality which expressly authorizes the discharge from the premises; and

(c) a copy of the certificate of approval or order referred to in clause (a) has been provided to the municipality.

3(3) The provisions of Clause 3(1) 2. apply only to (1) the discharge of stormwater runoff from industrial process areas to a storm sewer, and (2) to any stormwater discharge to a storm sewer to which the matter prohibited by subsection 1 has been added for the purpose of disposing of the matter.

3(4) The provisions of Subclauses 3(1) 2.(c), (d), (e), and (f) do not apply to prevent the discharge of stormwater runoff from industrial process areas to a storm sewer when,

(a) the owner or operator of the premises has a certificate of approval or order relating to the premises under the Environmental Protection Act (Ontario) or the Ontario Water Resources Act which expressly allows the discharge and a copy of the certificate of approval or order has been provided to the municipality; or

(b) the owner or operator of the premises has written approval from the municipality for a Best Management Practices Plan (BMP) which has been prepared in accordance with Schedule A.

SECTION 4

REPORTS

4(1) Notwithstanding sections 2 and 3, the owner or operator of any industrial premises or class of industrial premises listed in Schedule B shall not discharge or deposit or cause or permit the discharge or deposit of sewage into or in land drainage works, private branch drains or connections to any sanitary sewer, combined sewer or storm sewer, after the _____ day of _____.

(2) Subsection (1) does not apply with respect to any industrial premises for which a current Waste Survey Report prepared in accordance with Subsections (3) and (4) has been filed at the municipality.

(3) The Waste Survey Report shall contain the following information and shall be signed by an authorized representative of the owner or operator:

(a) name and address of the premises, and names of its owner and operator;

(b) description of process operations, including waste discharge rates and contaminant concentrations, hours of operation, and Canadian or U.S. Standard Industrial Classification codes;

(c) a schematic process diagram indicating waste discharge points and waste descriptions;

(d) the generator registration number, if any, assigned with respect to the premises under Ontario Regulation 309 made under the Environmental Protection Act (Ontario); and

(e) the waste class, hazardous waste number, primary and secondary characteristics and analytical data and the name of the laboratory, if any, furnished to the Ontario Ministry of the Environment under Ontario Regulation 309 made under the Environmental Protection Act (Ontario) relating to any material discharged into or in land drainage works, private branch drains or connections to any sanitary, combined or storm sewer.

(4) The Waste Survey report shall be in the form attached as Schedule B1.

(5) Where a change occurs in the information required under Clause (3)(a) contained in a Waste Survey Report, the owner or operator of the premises shall submit the new information within 30 days of the change.

(6) Where a change occurs in any information required under Clauses (3)(b),(c),(d), or (e) described in a Waste Survey Report, the owner or operator of the premises shall not discharge or deposit or cause or permit the discharge or deposit of sewage into or in land drainage works, private branch drains or connections to any sanitary sewer, combined sewer or storm sewer, after 60 days after the change occurs unless a new Waste Survey Report has been submitted setting out the change.

SECTION 5

AGREEMENTS

5(1) Subject to subsections (2), (3), and (4), the discharge or deposit of sewage that would otherwise be prohibited by this by-law may be permitted into or in any connection to any sanitary sewer or combined sewer to an extent fixed by agreement with the municipality under such conditions with respect to payment of additional sewage service rates or otherwise as may be necessary to compensate for any additional costs of operation, repair, and maintenance of the sewage works.

(2) An agreement can only be made for discharge of the following parameters in sewage: suspended solids, biochemical oxygen demand, phenolic compounds, solvent extractable matter of animal or vegetable origin, Kjeldahl nitrogen, and phosphorus.

(3) The agreement shall be in the form attached as Schedule C and, upon recommendation of _____, _____ is authorized to execute such agreements under authority of this by-law.

(4) Where the operating authority for the sewage treatment plant which is receiving sewage defined in the agreement is not the municipality, an agreement under this section does not become effective unless the operating authority has reviewed and approved the agreement.

(5) A person who has entered into an agreement with the municipality shall not be prosecuted under Section 2 of this by-law for the discharge or deposit of sewage containing the matters specified in the agreement and in compliance with the agreement during the period within which the agreement is applicable and so long as the agreement is being fully complied with.

SECTION 6

COMPLIANCE PROGRAM

6(1) A compliance program may be issued as set out in subsections (2) to (6) and (9) for the discharge of a non-complying effluent during the period of planning, design, construction or installation of facilities to eliminate the non-compliance.

(2) The owner or operator of industrial premises may submit to the municipality a program to prevent or to reduce and control the discharge or deposit of sewage into or in land drainage works, private branch drains or connections to any sanitary sewer or combined sewer from premises.

(3) The owner or operator of industrial premises may submit to the municipality a program to prevent or to reduce and control the discharge or deposit of uncontaminated water or stormwater or eliminate the discharge or deposit of sewage into or in land drainage works, private branch drains or connections to any storm sewer from the premises.

(4) The municipality may issue an approval for a compliance program to the person who submitted the program.

(5) Every compliance program shall be for a specified length of time during which the facilities are to be installed and shall be specific as to the remedial actions to be implemented, the dates of commencement and completion, and the materials or other characteristics of the sewage, uncontaminated water or stormwater to which it relates. The final activity completion date shall not be later than the final compliance date in the compliance program.

(6) The compliance program shall be in the form attached as Schedule D and, upon recommendation of _____, _____ is authorized to execute such compliance programs under the authority of this by-law.

(7) A person to whom a compliance program has been issued shall submit a compliance program progress report within 14 days after the scheduled completion date for each activity listed in the compliance program.

(8) The compliance program progress report shall be in the form attached as Schedule E.

(9) Where the operating authority for the sewage treatment plant, land drainage works, or storm sewer which is receiving sewage, uncontaminated water or stormwater from the premises identified in the letter of compliance program is not the municipality, the compliance program does not become effective unless the operating authority has reviewed and approved the compliance program.

(10) A person to whom a compliance program has been issued shall not be prosecuted under section 2 or 3 of this by-law for the discharge or deposit of sewage, uncontaminated water or stormwater containing the matters specified in the compliance program and in compliance with the compliance program during the period within which the compliance program is applicable and so long as the compliance program is being fully complied with.

SECTION 7

SAMPLING AND ANALYSIS

7(1) Where a sample is required for the purpose of determining the characteristics or contents of the sewage, uncontaminated water or stormwater to which reference is made in this by-law;

(a) one sample alone is sufficient and, without limiting the generality of the foregoing the sample may be a grab sample or a composite sample, may contain additives for its preservation and may be collected manually or by using an automatic sampling device;

(b) except as otherwise specifically provided in this by-law, all tests, measurements, analyses and examinations of sewage, uncontaminated water and stormwater, shall be carried out in accordance with Standard Methods; and

(c) for each one of the following metals: aluminum, antimony, arsenic, bismuth, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, tin, titanium, vanadium and zinc whose concentration is limited in Subclauses 2(1) 2.(p) and 3(1) 2.(f), the analysis shall be for the quantity of total metal, which includes all metal both dissolved and particulate.

SECTION 8

SPILLS

8(1) Every person who discharges or deposits or causes or permits the discharge or deposit of sewage into or in land drainage works, private branch drains or connections to any sanitary sewer or combined sewer shall, if such discharge or deposit is not in the ordinary course of events forthwith notify the municipality or the agency responsible for operating the sewage works receiving the discharge or deposit.

(2) Every person who discharges or deposits or causes or permits the discharge or deposit of uncontaminated water or stormwater into or in land drainage works, private branch drains or connections to any storm sewer shall, if such discharge or deposit is not in the ordinary course of events forthwith notify the municipality or agency responsible for managing the land drainage works or storm sewer.

(3) Every person who discharges or deposits or causes or permits the discharge or deposit of any of the items listed in subclauses 2(1) 2.(q) and (s) into or in land drainage works, private branch drains or connections to any sanitary sewer or combined sewer shall, forthwith notify the municipality or the agency responsible for operating the sewage works receiving the discharge or deposit.

(4) Every person who discharges or deposits or causes or permits the discharge or deposit of any of the items listed in Subclauses 3(1) 2.(h) and (i) into or in land drainage works, private branch drains or connections to any storm sewer shall forthwith notify the municipality or agency responsible for managing the land drainage works or storm sewer.

(5) For any of the discharges in subsections 8(1), (2), (3) and (4) for which the person is required to forthwith notify the municipality or agency, the notification shall include the following information:

(a) name of the company and the address of location of spill;
(b) name of person reporting the spill and telephone number where that person can be reached;
(c) time of the spill;
(d) type and volume of material discharged and any associated hazards; and
(e) corrective actions being taken to control the spill.

(6) Within five days following a discharge to which subsection (5) applies, the person shall submit to the municipality or agency a detailed written report describing the cause of the spill and the actions taken or to be taken to prevent a recurrence.

SECTION 9

GENERAL

9(1) The owner or operator of industrial premises with one or more connections to a sewage works shall install and maintain in good repair in each connection a suitable manhole to allow observation and sampling of the sewage and measurement of the flow of sewage therein, provided that where installation of a manhole is not possible, an alternative device or facility may be substituted with the written approval of the _____ of the municipality.

(2) The manhole or alternate device shall be located on the property of the owner or operator of the premises, unless the _____ of the municipality has given written approval for a different location.

(3) Every manhole, device or facility installed as required by subsection (2) shall be designed and constructed in accordance with good engineering practice and the requirements of the municipality, and shall be constructed and maintained by the owner or operator of the premises at his expense.

(4) The owner or operator of industrial premises shall at all times ensure that every manhole, device or facility installed as required by subsection (2) is at all times accessible for purposes of observing and sampling the sewage and measuring the flow of sewage therein.

(5) The municipality may require the owner or operator of industrial premises to install and maintain devices to monitor sewage discharges and to submit regular reports regarding the discharges to the municipality.

(6) For the purpose of the administration of this by-law, a person appointed by council for the purpose may, upon production of his identification, enter any industrial premises, to observe, to measure the flow of sewage to any sewer and to collect any samples required.

(7) No person shall break, damage, destroy, deface or tamper or cause or permit the breaking, damaging, destroying, defacing or tampering with:

(a) any part of a sewage works; or

(b) any permanent or temporary device installed in a sewage works for the purpose of measuring, sampling and testing of sewage.

(8) The agreement contemplated by Section 5 and the compliance program contemplated by Section 6 may be terminated by the municipality on 30 days written notice if the discharge of sewage covered by such agreement or compliance program is causing contravention of Clauses 2(1)1. and 3(1)1. of the by-law.

(9) The agreement contemplated by Section 5 and the compliance program contemplated by Section 6 may be terminated by the municipality by written notice at any time where there is an emergency situation of immediate threat or danger to any person, property, plant or animal life, or waters.

SECTION 10

OFFENCES

10(1)Every person who contravenes any provision of this by-law is guilty of an offence and on conviction is liable to a fine of not more than $2,000 for every day or part thereof upon which such offence occurs or continues.

(2) Every person other than a corporation who contravenes any provision of this by-law is guilty of an offence and on conviction is liable for every day or part thereof upon which such offence occurs or continues to a fine of not more than $5,000 for a first offence and $10,000 for any subsequent conviction.

(3) Every corporation which contravenes any provision of this by-law is guilty of an offence and on conviction is liable for every day or part thereof upon which such offence occurs or continues to a fine of not more than $25,000 for a first offence and $50,000 for any subsequent conviction.

(4) In this by-law, subsequent conviction means a conviction for an offence which offence occurs after the date of conviction for an earlier offence under this by-law or By-Law No. _____.

(5) Subsections (2), (3), and (4) come into force on the date section 11 of Bill No. 59 of the 1987 Municipal Act Amendment Act comes into force and subsection (1) is thereupon repealed.

/rmg
10960-07B.1/MISA/MUN88-1

SCHEDULE A – BEST MANAGEMENT PRACTICES (BMP) PLAN

A Best Management Practices Plan is a plan agreed to by the municipality with guidance from the Ontario Ministry of the Environment and is developed for activities which are associated with or ancillary to industrial manufacturing or treatment processes. The ancillary sources addressed in BMP plan are material storage areas; loading and unloading areas; plant site runoff; in-plant transfer, process, and material handling areas; and sludge and hazardous waste disposal areas. In general, the BMP Plan will include practices used by industry for pollution control from these sources, safety programs, fire protection, protection against loss of valuable raw materials or products, etc. The following elements must be included in a BMP Plan:

General

1. Name and location of facility
2. Statement of BMP policy and objectives
3. Review by plant manager

Specific

1. Establishment of BMP Committee
2. Risk Identification and Assessment
3. Reporting of BMP Incidents
4. Materials Compatibility
5. Good Housekeeping
6. Preventive Maintenance
7. Inspection and Records
8. Security
9. Employee Training

SCHEDULE B - INDUSTRIAL SECTORS

CATEGORY	SIC	SIC (CANADIAN)
Construction Industry	1600-1799	4011-4499
Food and Kindred Products		
Meat	2011-2013	1011
Poultry	2016-2017	1012
Dairy	2021-2026	1041-1049
Fruit and Vegetables	2032-2038	1031-1032
Grain Mills	2041-2048	1051-1059
Fats and Oils	2074-2079	1061
Bakery Products	2051-2052	1071-1072
Sugar Processing	2061-2067	1081-1089
Beverages	2082-2087	1111-1141
Seafood Processing	2091-2092	1021
Misc. Food Processing	2095-2099	1091-1099
Tobacco	2110-2141	1211-1221
Textile Mill Products		
Primary Textiles	2211-2269	1800-1899
Textile Products	2271-2299	1900-1999
Apparel & Other Textile Prod.	2311-2399	2441-2499
Lumber and Wood Products		
Timber Products Processing	2411-2499	2511-2599
Wood Preserving	2491	2591
Wood & Metal Furniture Manu.	2510-2599	2611-2699
Paper and Allied Products		
Pulp, Paper & Paperboard Mills	2600-2631	2711-2712
Misc. Converted Paper Products	2640-2655	2731-2799
Building Paper and Board Mills	2661	2713-2719
Printing and Publishing	2700-2799	2811-2899
Chemicals and Allied Products		
Inorganic Chemicals Manufact.	2810-2819	3711
Phosphate Manufacturing	2819	3721-3729
Plastics, Resins & Synthetic Fibers M.	2821-2824	3731
Pharmaceutical Manufacturing	2830-2834	3741
Soaps and Cosmetics	2840-2844	3761-3771
Paints, Varnishes Manufacture	2851	3751
Gums and Wood Chemicals	2861	3712
Dye Manufacture	2865	3712
Organic Chemicals & Pesticide Man.	2869	3712
Pesticide Formulation	2879	3712
Fertilizer Manufacture	2873-2875	3721-3729
Adhesives and Sealants	2891	3792
Explosives	2892	3711
Ink Manufacture	2893	3791
Carbon Black	2895	3711
Chemicals & Chemical Prepar.	2899	3711
Petroleum Refining	2911	3611
Paving and Roofing Materials	2951-2952	3699
Coal & Petroleum Products	2991-2999	3612-3698
Rubber and Misc. Plastic Products		
Rubber Products	3011-3069	1500-1599
Plastics Molding	3070-3079	1600-1699

SCHEDULE B - INDUSTRIAL SECTORS

CATEGORY	SIC	SIC (CANADIAN)
Leather and Leather Products		
Leather Tanning and Finishing	3111	1711
Leather Goods	3131-3199	1712-1719
Stone Clay and Glass Products		
Stone, Clay and Glass Products	3200-3299	3511-3599
Asbestos Manufacturing	3292	3592
Glass Manufacturing	3211-3229	3561-3562
Cement Manufacturing	3271-3273	3521-3551
Primary Metal Industries		
Iron and Steel	3300-3317	2911-2921
Foundries	3321-3325	2941
Nonferrous Metals Forming/Manu.	3331-3369	2951-2999
Aluminum Forming	3353-3355	2951
Copper Forming	3351-3357	2959
Misc. Primary Metal Products	3390-3399	2999
Fabricated Metal Products		
Metal Finishing	3411-3469	3011-3099
Electroplating	3471	3011-3099
Coil Coating	3479	3011-3099
Ordnance and Accessories	3482-3489	3011-3099
Misc. Fabricated Metal Products	3490-3499	3011-3099
Equipment and Machinery		
Machinery Manufacturing	3500-3599	3111-3199
Electrical & Electronic Comp.	3612-3690	3311-3399
Battery Manufacturing	3691-3692	3391
Misc. Electrical Equipment	3693-3699	3392-3399
Transportation Equipment	3711-3799	3211-3299
Instruments & Related Products	3811-3873	3911-3914
Misc. Manufacturing	3911-3999	3921-3999
Photographic Chemicals Manu.	3861	
Transportation and Public Services		
Transportation Services	4000-4799	4511-4599
Electricity Generation & Dist.	4911-4931	4911
Water Supply	4941	4931
Waste Treatment and Disposal	4952	4999
Refuse Systems	4953	4999
Hazardous Waste Treaters	4953	4999
Wholesale and Retail Industry		
Petroleum Products Dealers	5983-5989	5111
Automobile Wrecking	5015	5911
Barrel and Drum Reclaimers	5085	5919
Scrap and Waste Materials	5093	5919
Solvent Reclaimers	5093	5919
Waste Oil Reclaimers	5093	5919
Services		
Furniture Refinishing	7641	6213
Gasoline Service Stations	5541	6331
Automotive Repair	7532-7549	6351-6399
Photographic Services	7384	6571
Hospitals and Clinics	8062-8072	8611-8619
Industrial and Commercial Laundries	7211-7219	9721-9729
Funeral Services	7261	9731
Disinfecting & Exterminating	7342	9951
Building Maintenance	7349	9952-9959

SCHEDULE B1 – WASTE SURVEY REPORT

CITY OF _____
WASTE SURVEY REPORT

SECTION 1 – General Information

(a) Name of Person Submitting Report: _____
(name)

_____ _____
(company name, corporation, owner) (telephone no.)

_____ _____
(postal address) (postal code)

(b) Company Officer responsible for effluent control:

_____ _____
(name) (telephone no.)

(c) Location of Premises:

_____
(number, street, or road, municipality)

THE INFORMATION CONTAINED IN THIS REPORT TO THE BEST OF MY KNOWLEDGE AND BELIEF IS TRUE, COMPLETE AND ACCURATE.

_____
(authorized representative)

_____ _____
(title) (date)

SECTION 2 - Product or Service Information

(a) Canadian or Standard Industrial Classification Codes (SIC)

_____ _____ _____

_____ _____ _____

These are [] Canadian SICs or [] SICs.

(b) Brief description of manufacturing or service activities:

_____

_____

_____

(c) Principal products produced or services rendered:

_____

_____

_____

(d) Number of employees:

plant: _____ office: _____

(e) Number of shifts per day: ____ Number of days per week: _____

(f) Are major processes:

[ ] batch [ ] continuous [ ] both

If batch, average number of batches per 24-hour day: _____

(g) Is the production subject to seasonal variation:

[ ] yes [ ] no

If yes, briefly describe seasonal production cycle:

_____

_____

(h) Is there a special clean-up period: [ ] yes [ ] no

If yes, briefly describe clean-up period activities:

_____

_____

SECTION 3 - Waste Characteristics

(a) List all sources of water supply: _____

_____

(b) Type of waste discharged (check all that apply):

TYPE	AVE. FLOW/DAY (m^3/day)	
[ ] sanitary	_____	[ ] estimated [ ] measured
[ ] noncontact cooling	_____	[ ] estimated [ ] measured
[ ] contact cooling	_____	[ ] estimated [ ] measured
[ ] process	_____	[ ] estimated [ ] measured
[ ] other	_____	[ ] estimated [ ] measured

(c) Wastes are discharged to (check all that apply):

TYPE	AVE. FLOW/DAY (m^3/day)	
[ ] sanitary #1	_____	[ ] estimated [ ] measured
[ ] sanitary #2	_____	[ ] estimated [ ] measured
[ ] storm sewer #1	_____	[ ] estimated [ ] measured
[ ] storm sewer #2	_____	[ ] estimated [ ] measured
[ ] ground water	_____	[ ] estimated [ ] measured
[ ] surface water	_____	[ ] estimated [ ] measured
[ ] evaporation	_____	[ ] estimated [ ] measured

(attach additional list as necessary)

(d) Expected characteristics of wastes discharged to sanitary and storm sewers (complete Pollutant Information Sheets for the discharge to each sewer).

SECTION 4 - Physical Lay-out

Layout sketch of property (to scale or approximate) to co-ordinate buildings, pretreatment works, property boundaries, effluent lines, and sanitary and storm sewer connections. (Number sewers so that they can be related to Pollutant Information Sheets).

SECTION 5 - Regulation 309 Information

For wastes discharged into or in connections to any sanitary sewer or combined sewer or storm sewer.

(a) Generator registration number: _____

SECTION 6 - Regulation 309 Information

For wastes discharged into or in connections to any sanitary sewer or combined sewer or storm sewer (complete Section 6 for each sewer).

(a) Description of waste: _____

_____

(b) Description of generating process: _____

_____

(c) Primary characteristic: _____

Analytical data (if applicable): _____

_____

Name of Laboratory (if applicable): _____

_____

Waste Class: _____ Hazardous Waste Number: _____

(d) Secondary characteristic: _____

_____

Analytical data (if applicable): _____

_____

SECTION 7 - Pretreatment

Pretreatment devices or processes used for treating wastes or sludges before discharge to the sanitary sewer system (check as many as appropriate):

[ ] Air flotation
[ ] Centrifuge
[ ] Chemical precipitation
[ ] Chlorination
[ ] Cyclone
[ ] Filtration
[ ] Flow Equalization
[ ] Grease or oil separation, type _____
[ ] Grease trap
[ ] Grit Removal
[ ] Ion Exchange
[ ] Neutralization, pH correction
[ ] Ozonation
[ ] Reverse Osmosis
[ ] Screening
[ ] Sedimentation
[ ] Septic tank
[ ] Solvent separation
[ ] Spill protection
[ ] Sump
[ ] Biological treatment, type _____
[ ] Rainwater diversion or storage _____
[ ] Other chemical treatment, type _____
[ ] Other physical treatment, type _____
[ ] Other, type _____
[ ] No pretreatment provided

SECTION 8 - Pollutant Information Sheet (Controlled Matter)

Information for: [ ] sanitary sewer [ ] storm sewer
sewer number ____

Indicate by placing an "x" in the appropriate box for each listed parameter whether it is "suspected to be absent", "known to be absent", "suspected to be present" or "known to be present" and the known or expected concentration in milligrams per litre.

PARAMETER	KNOWN PRESENT	SUSPECTED PRESENT	KNOWN ABSENT	SUSPECTED ABSENT	CONCENTRATION mg/litre
1. chlorides	[ ]	[ ]	[ ]	[ ]	_____
2. sulphates	[ ]	[ ]	[ ]	[ ]	_____
3. aluminum	[ ]	[ ]	[ ]	[ ]	_____
4. iron	[ ]	[ ]	[ ]	[ ]	_____
5. fluoride	[ ]	[ ]	[ ]	[ ]	_____
6. phosphorus	[ ]	[ ]	[ ]	[ ]	_____
7. antimony	[ ]	[ ]	[ ]	[ ]	_____
8. bismuth	[ ]	[ ]	[ ]	[ ]	_____
9. chromium	[ ]	[ ]	[ ]	[ ]	_____
10. cobalt	[ ]	[ ]	[ ]	[ ]	_____
11. lead	[ ]	[ ]	[ ]	[ ]	_____
12. manganese	[ ]	[ ]	[ ]	[ ]	_____
13. molybdenum	[ ]	[ ]	[ ]	[ ]	_____
14. selenium	[ ]	[ ]	[ ]	[ ]	_____
15. silver	[ ]	[ ]	[ ]	[ ]	_____
16. tin	[ ]	[ ]	[ ]	[ ]	_____
17. titanium	[ ]	[ ]	[ ]	[ ]	_____
18. vanadium	[ ]	[ ]	[ ]	[ ]	_____
19. copper	[ ]	[ ]	[ ]	[ ]	_____
20. cyanide	[ ]	[ ]	[ ]	[ ]	_____
21. nickel	[ ]	[ ]	[ ]	[ ]	_____
22. zinc	[ ]	[ ]	[ ]	[ ]	_____
23. arsenic	[ ]	[ ]	[ ]	[ ]	_____
24. cadmium	[ ]	[ ]	[ ]	[ ]	_____
25. phenolic compounds	[ ]	[ ]	[ ]	[ ]	_____
26. mercury	[ ]	[ ]	[ ]	[ ]	_____

SECTION 8 - Pollutant Information Sheet (Controlled Matter)

PARAMETER	KNOWN PRESENT	SUSPECTED PRESENT	KNOWN ABSENT	SUSPECTED ABSENT	CONCENTRATION mg/litre
27. BOD	[ ]	[ ]	[ ]	[ ]	_____
28. TSS	[ ]	[ ]	[ ]	[ ]	_____
29. oil & grease (animal/veg)	[ ]	[ ]	[ ]	[ ]	_____
30. oil & grease (mineral/syn)	[ ]	[ ]	[ ]	[ ]	_____
31. Kjeldahl nitrogen	[ ]	[ ]	[ ]	[ ]	_____

SECTION 9 - Pollutant Information Sheet (No Discharge)

Information for: [ ] sanitary sewer number ____

Indicate by placing an "x" in the appropriate box for each listed parameter whether it is "suspected to be absent", "known to be absent", "suspected to be present" or "known to be present" and the known or expected quantity in kg/month.

PARAMETER	KNOWN PRESENT	SUSPECTED PRESENT	KNOWN ABSENT	SUSPECTED ABSENT	QUANTITY kg/month
32. pesticides	[ ]	[ ]	[ ]	[ ]	_____
33. acute hazardous waste chemicals	[ ]	[ ]	[ ]	[ ]	_____
34. fuels	[ ]	[ ]	[ ]	[ ]	_____
35. hazardous industrial wastes	[ ]	[ ]	[ ]	[ ]	_____
36. hazardous waste chemicals	[ ]	[ ]	[ ]	[ ]	_____
37. ignitable wastes	[ ]	[ ]	[ ]	[ ]	_____
38. pathological wastes	[ ]	[ ]	[ ]	[ ]	_____
39. PCB wastes	[ ]	[ ]	[ ]	[ ]	_____
40. reactive wastes	[ ]	[ ]	[ ]	[ ]	_____
41. severely toxic materials	[ ]	[ ]	[ ]	[ ]	_____
42. waste radio-active materials	[ ]	[ ]	[ ]	[ ]	_____

SCHEDULE C - AGREEMENT FORM

THIS AGREEMENT made

this _____ day of _____ A.D.19 ___.

BETWEEN: _____

(herinafter called the Municipality)

OF THE FIRST PART

-and- _____

(hereinafter called the Company)

OF THE SECOND PART.

WHEREAS the Municipality enacted By-law No. _____ on the _____ day of _____, relating to the discharge of sewage in the Municipality; and

WHEREAS the said By-law prohibits the discharge of industrial sewage containing certain substances in quantities in excess of the limits set by the By-law but provides that the Municipality may permit the discharge of industrial waste which would otherwise be prohibited by the said By-law to an extent fixed by agreement with the Municipality under such conditions with respect to payment or otherwise as may be necessary to compensate for any additional costs of treatment; and

WHEREAS the Company carries on an industrial activity within the Municipality at premises known as _____ which activity produces a sewage discharge in which the quantity of one or more of Suspended Solids, Biochemical Oxygen Demand (hereinafter referred to as B.O.D.), Phenolic Compounds, Kjeldahl nitrogen, Phosphorus, or solvent extractable matter of animal and vegetable origin (hereinafter referred to as Grease) is above the permissible limits set out in the said By-law which results in materially adding to the cost of treatment at the municipal sewage works.

NOW THEREFORE THIS INDENTURE WITNESSETH that the parties hereto mutually covenant and agree as follows:-

1. (1) During the currency of this agreement the **QUANTITY OF SEWAGE DISCHARGED** by the Company from its premises at _____ to the sanitary sewer or combined sewer system shall not exceed _____ cubic metres per day and the **RATE OF SUCH DISCHARGE OF SEWAGE** from the said premises shall not exceed _____ cubic metres per hour.

(2) In calculating the quantity of sewage for the purposes of this agreement, stormwater shall be excluded.

2. During the currency of this agreement only, the **QUALITY OF THE SEWAGE** discharged by the Company from the said premises to the sanitary sewer or combined sewer system **MAY EXCEED THE LIMITS SET BY THE BY-LAW** with respect to the quantity of Suspended Solids, B.O.D., Phenolic Compounds, Grease, Phosphorus and Kjeldahl Nitrogen provided that they **SHALL NOT EXCEED THE FOLLOWING LIMITS AT ANY TIME.**

(a) Suspended Solids - _____ milligrams/litre
(b) B.O.D. - _____ milligrams/litre
(c) Phenolic Compounds - _____ milligrams/litre
(d) Grease - _____ milligrams/litre
(e) Phosphorus - _____ milligrams/litre
(f) Kjeldahl Nitrogen - _____ milligrams/litre

3. **THE DISCHARGE OF SEWAGE BY** the Company from the said premises containing Suspended Solids, B.O.D., Phenolic Compounds, Grease, Phosphorus or Kjeldahl Nitrogen, **IN EXCESS OF THE ABOVE LIMITS** shall constitute a contravention of this agreement and thus a contravention of the By-law.

4. In determining the quality of sewage for the purposes of this agreement, the volume of any stormwater or any water which is required to be deducted for the purposes of Section 5(1) of By-law No. _____ shall be deducted and Standard Methods as defined in the by-law shall be used.

5. **THIS AGREEMENT SHALL REMAIN IN FORCE** from _____ _____ until December 31st, _____, and be automatically renewed on January 1st, _____ and annually thereafter, on the same terms unless a new agreement is reached or this agreement is terminated as hereinafter provided.

6. **THIS AGREEMENT MAY BE TERMINATED BY THE MUNICIPALITY** at any time on 30 days written notice sent by registered mail addressed to the Company at the said premises, if:

(a) The sewage is causing a health or safety hazard to a sewage works employee; or

(b) The sewage is causing damage to the sewers, materially increasing their maintenance costs or causing a dangerous condition; or

(c) The sewage is causing damage to the sewage treatment process or causing a dangerous condition in the treatment works; or

(d) The sewage is causing the sludge from the sewage works, to fail to meet criteria relating to contaminants for spreading the sludge on agricultural lands under Ontario's Guidelines for Sewage Sludge Utilization on Agricultural Lands (as revised January, 1986); or

(e) The sewage is causing the sewage works effluent to contravene any requirement by or under the Ontario Water Resources Act or the Environmental Protection Act (Ontario); or

(f) The sewage is causing a hazard to any person, animal, property, or vegetation; or

(g) The sewage is contrary to By-law No. _____ in any way other than as provided herein.

7. **THIS AGREEMENT MAY BE TERMINATED BY THE MUNICIPALITY** at any time where there is an emergency situation of immediate threat or danger to any person, property, plant or animal life, or waters.

8. **THIS AGREEMENT MAY BE TERMINATED BY THE COMPANY** at any time on 30 days written notice sent by registered mail addressed to the _____ of the Municipality.

9. **IN THE EVENT OF A RENEWAL IF THE MUNICIPALITY GIVES WRITTEN NOTICE** sent by registered mail to the Company as aforesaid at any time within 30 days before or after the start of each calendar year, **THAT THE AMOUNT OF THE FEE OR ANY OF THE LIMITS HEREINBEFORE SET OUT ARE TO BE CHANGED** and no new agreement can be reached between the Municipality and the Company, this agreement may be terminated at the option of the Municipality at any time without notice 90 days after the registered notice was sent.

10. **EXCEPT AS HEREIN OTHERWISE EXPRESSLY PROVIDED THE COMPANY SHALL CONFORM TO THE PROVISIONS OF THE SAID BY-LAW** of the Municipality relating to the discharge of sewage and in the event of termination of this agreement the Company shall conform to the provisions of the said By-law.

11. **THE COMPANY HEREBY CONVENANTS AND AGREES TO PAY TO THE MUNICIPALITY** a fee based on an average excess suspended solids of _____ milligrams/litre, an average excess B.O.D. of _____ milligrams/ litre, an average excess phenolic compounds of _____ milligrams/ litre, an average excess of grease of _____ milligrams/litre, an average excess of Kjeldahl nitrogen of ____ milligrams/litre, an average excess of phosphorus of _____ milligrams/litre. An estimated annual plant discharge of _____ cubic meters, and at a treatment cost set by the Municipality on a year to year basis.

The said fee shall become due and be paid quarter yearly on the last days of March, June, September and December in each year of any renewal until terminated as herein provided. The fee payable for the period _____, to December 31, _____, shall be ($_____), payable in quarter yearly installments of ($_____).

12.(1) **THE COMPANY COVENANTS AND AGREES TO PAY TO THE MUNICIPALITY** on demand interest on overdue amounts at the prime rate existing for the day on which such amount is due and calculated from such date to the date of payment.

(2) In Subsection (1), "Prime rate" means the lowest rate of interest quoted by chartered banks to the most creditworthy borrowers for prime business loans as determined and published by the Bank of Canada in the periodic publication entitled the Bank of Canada Review.

13. **THE MUNICIPALITY MAY TERMINATE THIS AGREEMENT** at its option without notice if the Company fails for more than two months to pay an overdue amount but such termination shall not relieve the Company from its liability to make such payment.

14.(1) Where the Company has substantially reduced the quantity of the substances discharged under the terms of this agreement by reason of the installation of pretreatment facilities or a change in its processes or operations, the Company shall be entitled to a reduction in the charge so that the payments shall be based on the reduced quantity discharged.

(2) A reduction under Subsection (1) in the amount of the charge shall not take effect until 30 days from the date that the Company notifies the Municipality in writing of the change and until the Municipality has had such additional time as may be necessary in the circumstances to take samples and re-evaluate the waste being discharged.

(3) Where it is determined that the quantity of the substances discharged under the terms of this agreement has substantially increased, the Municipality shall be entitled to increase the charge so that payments shall be based on the increased quantity discharged.

(4) An increase under Subsection (3) shall not take effect until the Municipality notifies the Company in writing of the increase in the amount of the charge, and the effective date of the increase.

15. **THIS AGREEMENT** shall enure to the benefit of, and be binding upon the heirs, executors, administrators, successors and assigns of the parties hereto.

16. **THIS AGREEMENT** has been reviewed and is acceptable to the operating authority of the Sewage Treatment Plant. (This section is to be deleted where the municipality is the operating authority.)

17. THIS AGREEMENT has been reviewed and is acceptable to The Corporation of The _____ of _____. (This section is only used where the contaminants dealt with may have an effect on sewers of a second municipality e.g., where the sewage first runs through an area municipality's collector sewers before entering a regional municipality's sewage works).

IN WITNESS WHEREOF the parties hereto have hereunto affixed their Corporate Seals attested to by the hands of their respective proper officers in that behalf duly authorized.

SIGNED, SEALED AND DELIVERED in the presence of:) MUNICIPALITY

_____
Municipal Official

_____
Treasurer

_____
Operating Authority of STP

_____
Company Name

_____
Company Official

SCHEDULE D – LETTER OF COMPLIANCE PROGRAM

LETTERHEAD

Address: _____ Date: _____

Attention of: _____

COMPLIANCE PROGRAM NUMBER _____

In accordance with the provision of Section _____ of _____ By-law _____, you are hereby granted a compliance program for the attached program identified in Appendix I subject to the following conditions:

1. During the period covered by this compliance program only, the quality of the _____(sewage, uncontaminated water, or stormwater) discharged by your Company from the said premises to the _____ (sanitary, combined or storm) sewer system or land drainage works may exceed the limits set by By-law _____with respect to the parameters listed below provided that they shall not exceed the following limits at any time:

	parameter	limit (mg/litre)
(a)	_____	_____
(b)	_____	_____
(c)	_____	_____
(d)	_____	_____
(e)	_____	_____
(f)	_____	_____

1. The discharge of _____ (sewage, uncontaminated water or stormwater) by your company from the said premises containing the parameters listed in Item 1 in excess of the limits listed in Item 1 shall constitute a contravention of this compliance program and thus a contravention of the said by-law.

3. The compliance program may be terminated at any time on 30 days written notice sent by registered mail addressed to the Company at the said premises, if

   (a) The sewage is causing a health or safety hazard to a sewage works employee; or
   (b) The sewage is causing damage to the sewers, materially increasing their maintenance costs or causing a dangerous condition; or
   (c) The sewage is causing damage to the sewage treatment process or causing a dangerous condition in the treatment works; or
   (d) The sewage is causing the sludge from the sewage works, to fail to meet criteria relating to contaminants for spreading the sludge on agricultural lands under Ontario's Guidelines for Sewage Sludge Utilization on Agricultural Lands (as revised January, 1986); or
   (e) The sewage is causing the sewage works effluent to contravene any requirement by or under the Ontario Water Resources Act or the Environmental Protection Act (Ontario); or
   (f) The sewage is causing a hazard to any person, animal, property, or vegetation; or
   (g) The sewage is contrary to By-law No. _____ in any way other than as provided herein.

   (The above clauses should be appropriately changed if the compliance program is being issued for the discharge of stormwater.)

4. The compliance program may be terminated at any time where there is an emergency situation of immediate threat or danger to any person, property, plant or animal life, or waters.

5. This compliance program shall remain in force until _____ provided the following timetable is adhered to:

COMPLIANCE PROGRAM ACTIVITIES	SCHEDULED COMMENCEMENT DATE	SCHEDULED COMPLETION DATE
a. Select Engineer	_____	_____
b. Engineering Investigation of Plant Conditions (Industrial Process Review & Wastewater Characterization)	_____	_____
c. Select Treatment Process & Design Criteria (Treatability Studies)	_____	_____
d. Detailed Design of Treatment System (Plans & Specifications)	_____	_____
e. Preparation of Operations Manual	_____	_____
f. Select Contractor For Installation/Construction	_____	_____
g. Commence Construction		
i. Site Preparation (survey, excavation, etc.)	_____	_____
ii. Foundation Work & Underground Utilities (slabs, sewer, etc.)	_____	_____
iii. Structural Work (bldgs., etc.)	_____	_____
iv. Mechanical Work (control panels, etc.)	_____	_____
v. Electrical Work (control panels, etc.)	_____	_____
vi. Site Finish Work (fences, clean-up, etc.)	_____	_____
h. Pretreatment System Start Up	_____	_____

6. You must, however, take all necessary steps to ensure that all other conditions and parameters listed in the By-law are not exceeded, as there are no other exemptions.

7. This Compliance Program has been reviewed and is acceptable to the operating authority of the Sewage Treatment Plant. (This section is to be deleted where the municipality is the operating authority).

8. This Compliance Program has been reviewed and is acceptable to the Corporation of The _____ of _____. (This section is only used where the contaminants dealt with may have an effect on sewers of a second municipality e.g., where the sewage first runs through an area municipality's collector sewers before entering a regional municipality's sewage works).

9. You must acknowledge your acceptance of this compliance program by returning a signed copy of this letter of compliance program within 30 days of your receipt of the letter.

_____

Municipal Officer

_____

Operating Authority of STP

Signed and Accepted by:

_____

Authorized Representative

_____

Company Name

SCHEDULE E - COMPLIANCE PROGRAM PROGRESS REPORT*

COMPANY NAME: _____ ADDRESS: _____

DATE SUBMITTED: _____ AUTHORIZED REPRESENTATIVE: _____

1. COMPLIANCE PROGRAM ACTIVITY DESCRIPTION: _____
   _____
   _____

2. SCHEDULED COMPLETION DATE FOR ABOVE ACTIVITY: _____

3. ACTIVITY COMPLETED ON SCHEDULE? YES [ ] NO [ ]

4. IF NOT ON SCHEDULE, INDICATE ANTICIPATED COMPLETION DATE: _____

5. STATE REASON FOR DELAY, IF APPLICABLE: _____
   _____
   _____
   _____
   _____

6. WHAT ACTION HAS BEEN INITIATED TO RETURN PROJECT TO ORIGINAL SCHEDULE?
   _____
   _____
   _____
   _____

* Report is to be submitted within 14 days after scheduled completion of each Activity listed in the Compliance Program.

SEWER USE MODEL BY-LAW

APPENDIX/GUIDANCE MANUAL

ABBREVIATIONS OR ACRONYMS USED IN GUIDANCE MANUAL

AECB	-	Atomic Energy Control Board
APHA	-	American Public Health Association
ASTM	-	American Society for Testing and Materials
AWWA	-	American Water Works Association
Blue Book	-	Water Management - Goals, Policies, Objectives and Implementation Procedures of the Ministry of the Environment, November 1978, Revised May, 1984
BMP	-	Best Management Practices
BOD	-	Biochemical Oxygen Demand
BPJ	-	Best Professional Judgement
EPA	-	Environmental Protection Act
IDMIS	-	Industrial-Discharge Management Information System
MEA	-	Municipal Engineers Association
µg/L	-	micrograms per litre
mg/L	-	milligrams per litre
MISA	-	Municipal Industrial Strategy for Abatement
MOE	-	Ontario Ministry of the Environment
OWRA	-	Ontario Water Resources Act
PCB	-	Polychlorinated biphenyl
PM	-	Preventative Maintenance
POTW	-	Publicly Owned Treatment Works
STP	-	Sewage Treatment Plant
SIC	-	Standard Industrial Classification
TDGA	-	Transportation of Dangerous Goods Act
UMIS	-	Utility Monitoring Information System
WPCF	-	Water Pollution Control Federation
WzMO	-	Water Quality Management Objectives (Blue Book)

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I. BACKGROUND

1.0 Current Status of Sewer Use Control in Ontario

The goal of the Municipal-Industrial Strategy for Abatement (MISA) program is the virtual elimination of persistent toxic contaminants in municipal and industrial discharges into Ontario's waterways. This goal will be achieved through the development and implementation of regulations containing monitoring requirements and effluent limits. One item identified during the public review process as needing greater attention by the MISA program is the problem of industrial discharges into municipal sewage treatment plant systems, which in turn discharge into Ontario waterways.

In order to evaluate the magnitude of this problem, the Ministry of Environment prepared an inventory of Ontario industries by major industrial sectors and by geographic location based on information from Scott's Directory. Summaries of these inventories are presented in Tables I-1 and I-2.

In addition to the 18,600 Ontario industries in the major sectors presented in Tables I-1 and I-2, MOE estimates that there are approximately 10,000 commercial establishments which discharge into municipal sewage works.

The Ministry of the Environment is currently in the process of developing the optimum Sewer Use Control Strategy for the control of industrial and non-industrial toxic discharges to sewer systems.

The Sewer Use Control Strategy will address all the elements required for a comprehensive and enforceable sewer use program including legislative requirements, implementation activities, enforcement mechanisms, resource requirements and information handling mechanisms. The target date for selection of the Sewer Use Control Strategy is December 1988.

Table I-1

Ontario Industries by Industrial Sector*

SECTOR	NUMBER
Food and Kindred Products	1,646
Textile Mill Products	1,086
Lumber and Wood Products	1,894
Paper and Allied Products	439
Printing and Publications	2,413
Organic Chemicals	128
Chemicals and Allied Products	801
Rubber and Misc. Products	128
Plastics Moldings	675
Leather and Leather Products	170
Stone, Clay and Glass	881
Primary Metal Products	345
Fabricated Metal Products	2,308
Equipment and Machinery	5,686
TOTAL	18,600

* Based on information from Scott's Directory, 16th Edition.

Table I-2
Ontario Industries by Industrial Sector and Location*

INDUSTRIAL SECTOR LOCATION	FOOD AND KINDRED PRODS.	TEXTILE MILL PRODS.	LUMBER AND WOOD PRODS.	PAPER AND ALLIED PRODS.	PRINT AND PUBL.	ORGANIC CHEM.	CHEM AND ALLIED PRODS.	RUBBER AND MISC. PRODS.	PLASTIC MOLD.	LEATHER AND LEATHER PRODS.	STONE CLAY AND GLASS	PRIMARY METAL PRODS.	FAB. METAL PRODS.	EQUIP. AND MACH.	TOTAL
MOE REGIONS															
CENTRAL	83	23	82	17	88	2	18	8	46	2	64	11	84	168	696
NORTHEAST	52	7	98	8	43	3	5	3	3	0	39	6	36	66	369
NORTHWEST	36	9	67	12	31	1	8	0	2	0	19	0	19	39	243
SOUTHEAST	169	72	137	22	87	10	31	4	23	12	59	30	75	176	907
SOUTHWEST	330	57	175	20	200	16	84	10	57	17	135	40	231	580	1952
WEST CENTRAL	73	28	60	17	65	6	32	8	27	3	44	18	85	160	626
REGIONAL MUNICIPALITIES															
METRO TORONTO	380	626	495	140	1066	34	263	24	195	87	150	68	670	1674	5872
DURHAM	39	21	57	17	60	5	22	10	30	1	29	9	67	176	543
HALDIMAND	37	6	14	0	9	2	12	0	1	0	20	2	16	41	160
HALTON	35	28	56	19	65	7	53	12	29	2	48	16	114	282	766
HAMILTON	46	24	29	14	62	6	16	6	12	5	25	29	92	156	522
NIAGARA	96	26	71	16	60	3	31	3	11	7	59	24	107	160	674
OTTAWA	29	15	38	10	90	1	14	0	12	1	27	5	62	190	494
PEEL	106	48	181	63	237	24	130	26	121	4	70	44	327	924	2305
SUDBURY	9	2	4	0	4	0	1	2	1	0	7	3	10	24	67
WATERLOO	59	54	102	9	46	6	13	8	32	22	30	23	122	289	815
YORK	67	40	228	55	200	2	68	4	73	7	56	17	191	581	1589
SUBTOTALS															
REG. MUN. + METRO	903	890	1275	343	1899	90	623	95	517	136	521	240	1778	4497	13807
MOE REGIONS	743	196	619	96	514	38	178	33	158	34	360	105	530	1189	4793
TOTAL	1646	1086	1894	439	2413	128	801	128	675	170	881	345	2308	5686	18600

* Based on information from Scott's Directory, 16th Edition.

The 1987 model sewer use by-law which is discussed in this Guidance Manual is a part of the interim strategy of the sewer use control program and provides a mechanism for the control of toxic discharges into the sewer system.

2.0 History of the Sewer Use By-law

Most municipalities currently have sewer use by-laws, which are a variation of the MOE-Municipal Engineers Association (MEA) Model Sewer Use By-law developed in 1975.

In 1985, MOE established an inter-agency Industrial Sewer Use Control By-law Review Committee with external representation from Environment Canada and MEA to update the 1975 Model By-law.

The 1987 Model Sewer Use By-law differs from the 1975 Model By-law in the following ways:

1. Inclusion of discharge limits for several additional heavy metals.

2. More stringent discharge limits for some metals.

3. Prohibition of dilution to achieve limits.

4. Prohibition of discharge of specified hazardous materials, waste pesticides/herbicides, and industrial wastes and chemicals listed in Schedules 1-3 of Regulation 309.

5. Addition of industrial reporting requirements (Waste Survey Report).

6. Addition of concentration limits for surcharged parameters in agreements.

7. Addition of concentration limits for specific parameters in compliance programs.

8. Addition of schedule in compliance programs.

9. More comprehensive storm sewer section.

   The draft model by-law prepared by the Industrial Sewer Use Control By-law Review Committee was reviewed extensively by MOE Regional and Branch Directors, municipalities, industries, industrial organizations, and environmental groups. The comments and concerns from this review (summarized in the Compendium of Comments On the Model Sewer Use By-law dated April 22, 1987) have resulted in the final version of the 1987 Model Sewer Use By-law dated January 31, 1988.

10. Spills reporting.

11. Best Management Practices for contaminated runoff.

II. LEGISLATIVE AUTHORITY

Specific sections of the Municipal Act, Provincial Offences Act, Ontario Water Resources Act, and Environmental Protection Act apply to a municipal sewer use control program. A brief description of the relevant sections from each of these Acts is presented in this section.

1.0 Municipal Act

1.1 Section 210, Paragraph 147 - (By-laws - Control of Sewage)

Paragraph 147 of Section 210 states that a municipality may pass a by-law for "prohibiting, regulating and inspecting the discharge of any gaseous, liquid or solid matter into land drainage works, private branch drains and connections to any sewer, sewer system or sewage works for the carrying away of domestic sewage or industrial wastes or both, whether connected to a treatment works or not".

Subparagraph (a) in paragraph 147 provides for a person appointed by council for the purpose of carrying out such inspections, to enter in or upon any land or premises except land or premises being used as a dwelling at any time without a warrant and to take such tests and samples as are necessary for the purposes of inspection.

1.2 Section 210, Paragraphs 77 and 134 (By-laws - Regulations for Sewage and Nuisances)

Two additional provisions in Section 210 which may be used by the municipality for sewer use control are paragraphs 77 and 134. Paragraph 77 allows municipal by-laws for "making any other regulations for sewage or drainage that may be considered necessary for sanitary purposes", while paragraph 134 allows municipal by-laws for "prohibiting and abating public nuisances".

The power of municipalities to regulate the use of their sewage systems is very extensive under the Municipal Act. Thus, the legislative authority for all the sections of the 1987 Model Sewer Use By-law (Waste Survey Report, agreement, compliance program, requirement for installation of manhole, etc.) comes from the Municipal Act.

1.3 Section 321 (Power to impose fines)

Section 321 of the Municipal Act states:

"By-laws may be passed by the councils of all municipalities and by the boards of commissioners of police for providing that any person who contravenes any by-law of the council or of the board, as the case may be, passed under the authority of this Act, is guilty of an offence and for providing for the imposition of fines of not more than $2,000 on every person who is convicted of an offence under any such by-law."

On December 7, 1987, an amendment to the Municipal Act which raises penalties for sewer use by-law offences was given first reading. This amendment establishes the following maximum fines for sewer use by-law offences:

	Individual	Corporation
First Offence	$ 5,000	$25,000
Subsequent Offences	$10,000	$50,000

1.4 Section 326 (Power to restrain by order when conviction entered)

Section 326 of the Municipal Act states:

"Where any by-law of a municipality or of a local board thereof, passed under the authority of this or any other general or special Act, is contravened and a conviction entered, in addition to any other remedy and to any penalty imposed by the by-law, the court in which the conviction has been entered, and any court of competent jurisdiction thereafter, may make an order prohibiting the continuation or repetition of the offence by the person convicted".

In the situation of repeated offences of the sewer use by-law by the same offender, the municipality may wish to pursue a further remedy of prohibiting the continuation or repetition of the offence through an order of prohibition which is provided for in Section 326.

If the offender knowingly acts in contravention of the order of prohibition, an application can further be brought for an order citing the offender in contempt of court and committing the offender to jail. In addition, fines and other orders may be given.

2.0 Provincial Offences Act

2.1 Section 2.0 (Designation of Provincial Offences Officers)

Under Section 2 of the Provincial Offences Act, a minister may in writing designate any person or class of persons as provincial offences officers for the purposes of all or any class of offences.

All municipal by-law officers may be designated provincial offences officers by the minister.

2.2 Subsection 3(2) (Issuance and service)

Subsection 3(2) states:

"A provincial offences officer who believes that one or more persons have committed an offence may issue, by completing and signing, a certificate of offence certifying that an offence has been committed and,

(a) an offence notice indicating the set fine for the offence; or
(b) a summons,

in the form prescribed under Section 13."

In accordance with this section, a municipal by-law officer may issue a certificate of offence and either an offence notice with a set fine (fixed fine approach) or a summons for violations of the sewer use by-law. The fixed fine approach could facilitate enforcement for minor violations of the sewer use by-law, but the maximum amount of fine allowed is $300.

3.0 Ontario Water Resources Act

The Ontario Water Resources Act (OWRA) which is administered by the Ministry of the Environment, provides for the control and protection of the quality of surface and ground water. The following sections specifically deal with sewer use control.

3.1 Section 16(1) (Discharge of Polluting Material)

Subsection 16(1) states:

"Every municipality or person that discharges or deposits or causes or permits the discharge or deposit of any material of any kind into or in any well, lake, river, pond, spring, stream, reservoir or other water or water course or on any shore or bank thereof or into or in any place that may impair the quality of the water of any well, lake, river, pond, spring, stream, reservoir or other water or watercourse is guilty of an offence."

An industrial discharge to a municipal sanitary or combined sewer which results in a harmful material passing through the sewer system into a watercourse could potentially constitute a violation of this section. However, the proof of such a violation may be a problem since the industrial discharge first passes through a sewage treatment plant before being discharged to the receiving stream.

An industrial discharge to a storm sewer which impairs the quality of the receiving water constitutes a violation of Section 16. The Ministry of the Environment has successfully prosecuted cases for this type of offence.

3.2 Section 44 (Regulations)

The following clauses of Subsection 44(1) allow the Minister, subject to the approval of the Lieutenant Governor, to make regulations:

44(1)(f) regulating and controlling the content of sewage entering sewage works;

44(1)(h) prescribing standards of quality for potable and other water supplies, sewage and industrial waste effluents, receiving streams and water courses; and

44(1)(i) specifying any matter or substance as sewage for the purposes of any section or sections of this Act or of any regulation made thereunder.

These clauses effectively allow the Minister of the Environment to make regulations for sewer use control.

3.3 Section 51 (Sewage Disposal)

Subsection 51(1) states:

"If an industrial or commercial enterprise makes arrangements for the collection, transmission, treatment or disposal of sewage that are considered unsatisfactory by a Director, the Director may require such industrial or commercial enterprise,

(a) to make investigations and submit reports to the Director in respect of the collection, transmission, treatment or disposal of sewage;

(b) to install, construct or arrange such facilities for the collection, transmission, treatment or disposal of sewage; and

(c) to maintain, keep in repair and operate such facilities,

as may be directed from time to time by the Director."

If the Director of MOE is of the opinion that the sewage arrangements for an industrial or commercial enterprise are unsatisfactory, the Director may require any of the items included in this section.

Subsection 51(2) states:

"If an industrial or commercial enterprise makes no arrangements for the collection, transmission, treatment or disposal of sewage, a Director may require such industrial or commercial enterprise,

(a) to make investigations and submit reports to the Director in respect of the collection, transmission, treatment or disposal of sewage;

(b) to install, construct or arrange such facilities for the collection, transmission, treatment or disposal of sewage; and

(c) to maintain, keep in repair and operate such facilities,

as may be directed from time to time by the Director."

If an industrial or commercial enterprise has made no sewage arrangements, the Director may require any of the items included in this subsection.

3.4 Section 52 (Discharge of Sewage into Sewage Works)

Subsection 52(1) states:

"Where a discharge or deposit of sewage into a sewage works, in the opinion of a Director, may interfere with the proper operation of a sewage works, the Director may, by notice served on or sent to the municipality that or the person who discharges or deposits or causes or permits the discharge or deposit of sewage, require the municipality or person to stop or regulate such discharge or deposit or to take such measures in relation thereto in such manner and within such time as the notice may require."

This section deals specifically with the case of a sewage discharge interfering with the operation of a sewage works. In the case where interference is caused by a sewage discharge, the Director may require the offender to stop such discharge or require the municipality to enforce its sewer use by-law thereby stopping or regulating the discharge.

4.0 Environmental Protection Act

4.1 Section 1a (Secondary Discharge within Building)

Section 1a states:

"A contaminant that is discharged into the air within a building or structure as a result of the discharge of the same or another contaminant in another building or structure shall be deemed to be discharged into the natural environment by the owner or the person who has the charge, management or control of the contaminant discharged in the other building or structure."

This section ensures that when a contaminant is discharged into the air in a building as a result of a discharge such as a sewer discharge within another building, it shall be deemed a discharge into the natural environment. Thus, discharge of volatile

organic compounds into the sewer which then are discharged into another building or a building at the sewage treatment plant could constitute a violation of this section of the Environmental Protection Act.

4.2 Section 13 (Prohibition)

Subsection 13(1) states:

"Notwithstanding any other provision of this Act or the regulations, no person shall deposit, add, emit or discharge a contaminant or cause or permit the deposit, addition, emission or discharge of a contaminant into the natural environment that,

(a) causes or is likely to cause impairment of the quality of the natural environment for any use that can be made of it;

(b) causes or is likely to cause injury or damage to property or to plant or animal life;

(c) causes or is likely to cause harm or material discomfort to any person;

(d) adversely affects or is likely to adversely affect the health of any person;

(e) impairs or is likely to impair the safety of any person;

(f) renders or is likely to render any property or plant or animal life unfit for use by man;

(g) causes or is likely to cause loss of enjoyment of normal use of property; or

(h) interferes or is likely to interfere with the normal conduct of business".

An industrial discharge into a sewer system does not in itself constitute a violation of Section 13. For a violation of Section 13, the following two items must occur:

(1) the incident must constitute a discharge into the natural environment, and

(2) any of the effects listed in clauses (a) through (h) of Section 13 have resulted or are likely to result.

Although it is possible to apply Section 13 to sewer discharges to sanitary or combined sewers, the problems of proof associated with Section 13 may make it difficult for enforcement of violations resulting from most discharges into a sewage works. However, Section 13 could be effectively applied to discharges to storm sewers.

III. BY-LAW INTERPRETATION

1.0 Section 1 - Definitions

Definitions for all by-law terms are found in Section 1. You should note the following items in this section:

1. The term "industrial" means of or pertaining to industry, manufacturing, commerce, trade, business, or institutions as distinguished from domestic or residential. Wherever the term industrial is used in the by-law, it includes commercial and institutional establishments.

2. The definitions for the following "hazardous waste" terms covered in Clauses 2(1)2.(q), 2(1)2.(s), 3(1)2.(h), and 3(1)2.(i), of the by-law are identical to the definitions in Regulation 309 made under the Environmental Protection Act (Ontario):

    - acute hazardous waste chemical;
    - hazardous industrial waste;
    - hazardous waste chemical;
    - ignitable waste;
    - PCB waste; and
    - reactive waste.

The definitions for the following "hazardous waste" terms covered in Clauses 2(1)2.(q), 2(1)2.(s), 3(1)2.(h), and 3(1)2.(i) of the by-law have been modified from the definitions in Regulation 309:

- pathological waste;
- radioactive waste; and
- severely toxic material.

2.0 Section 2 - Discharges to Sanitary Sewers Discharges to Combined Sewers

2.1 Prohibited Discharges

The prohibited discharges to the sanitary and combined sewers are contained in Subsection 2(1) of the by-law. To assist in the discussion of Subsection 2(1) of the by-law a schematic diagram of prohibited discharges to sanitary and combined sewers is shown in Figure 1. The explanations on the following pages correspond to the appropriate box in Figure 1.

Explanation 1 - Clause 2(1)1. of By-law

Industrial discharges into the sewer system can create serious problems because of the toxic and harmful pollutants often found in these discharges. Because the municipal sewage treatment plant is not designed to treat these industrial pollutants, it is necessary to control their discharge at the source before discharge into the sewer works which is done through the provisions of Section 2. In Clause 2(1)1. of the by-law, the discharge of any matter which creates the following problems is prohibited:

1. Health or safety hazard to sewage works employee. Some pollutants may cause the production of toxic gases which can be a health or safety hazard to the sewage works employees in the sewer pipes or at the treatment plant.

2. Harmful to sewage works. Some pollutants may cause corrosion of the pipes and equipment in the sewage collection system and at the treatment plant. Also, certain wastes can explode, causing destruction to the sewage works.

3. Effluent from sewage works contravenes a requirement of the Ontario Water Resources Act or the Environmental Protection Act. When a toxic pollutant passes through a sewage treatment plant without being treated, it can impair the quality of the receiving stream thereby resulting in a contravention of OWRA or EPA.

4. Sludge from sewage works fails to meet criteria in Ontario's Guidelines for Sewage Sludge Utilization on Agricultural Lands. Toxic pollutants which can be concentrated in sludge may prevent the use of the sludge on agricultural lands, thereby necessitating more expensive and limited methods for sludge disposal.

5. Interference with sewage treatment plant operation. Toxic pollutants may interfere with the sewage treatment processes, resulting in less efficient treatment of the conventional pollutants.

6. Hazard to any person, animal, property or vegetation. Toxic pollutants which pass through the sewage treatment plant without being treated are discharged into the receiving stream where they may result in a hazard to people, animals, property or vegetation.

Explanation 2 - Subclause 2(1)2.(a)

The discharge of solid or viscous substances in such quantities or of such size capable of obstructing the flow in a sewer is prohibited.

Explanation 3 - Subclause 2(1)2.(b)

Sewage which causes an offensive odour at the sewage works is prohibited. This section does not prohibit the discharge of hydrogen sulfide, carbon disulphide, amines, etc., if these compounds are not causing an odour problem in a sewage works.

Explanation 4 - Subclause 2(1)2.(c)

The discharge of stormwater, water from drainage of roofs or land, water from a watercourse or uncontaminated water into sanitary sewers is prohibited to prevent hydraulic overloading of the sewage works. Therefore, any connections of roof or land drains into sanitary sewers is prohibited. To effectively enforce this section, the municipality should develop a comprehensive inspection program to determine the extent of this problem and to develop a cross-connection prevention program as required.

Explanation 5 - Subclause 2(1)2.(d)

The discharge of water from a source separate or different from the municipal water supply is prohibited. The intent of this section is simply to identify the cases where water from a separate source is being used, for the purpose of calculating sewer charges, since the discharge of this water is actually allowed under Section 2(4) of the by-law when the required steps have been taken.

Explanation 6 - Subclause 2(1)2.(e)

The discharge of sewage with a temperature greater than 65° Celsius to either a sanitary or combined sewer and the discharge of uncontaminated water with a temperature greater than 65° Celsius to a combined sewer is prohibited in order to protect the sewage works and sewage treatment processes.

Explanation 7 - Subclause 2(1)2.(f)

The discharge of sewage with pH <5.5 or >9.5 is prohibited in order to protect the sewage works and sewage treatment processes.

Explanation 8 - Subclause 2(1)2.(g)

The discharge of sewage with greater than 15 mg/L solvent extractable matter of mineral or synthetic origin is prohibited.

This provision is meant to control the discharge of a general class of organic compounds.

The Ministry of the Environment is currently conducting a 40 Sewage Treatment Plant (STP) Study. The objective of the study is to identify pollutants of concern (metals, organics, and pesticides) in sewage treatment plant effluents and sludges through the sampling and analysis of the influents, effluents, and sludges of 40 STPs. The list of identified pollutants of concern will be evaluated and appropriately incorporated into the monitoring regulation and effluent limits regulation for the municipal sector under the MISA program. It is probable that discharge limits for specific organic compounds which are included in the regulation for municipal sewage treatment plants would then be appropriately incorporated into a sewer use control program.

Explanation 9 - Subclauses 2(1)2.(h),(i),(j),(k),(l) and (m)

The discharge of sewage containing concentrations greater than the following is prohibited:

- solvent extractable matter of animal or vegetable origin 150 mg/L
- biochemical oxygen demand 300 mg/L
- suspended solids 350 mg/L
- phosphorus 10 mg/L
- Kjeldahl nitrogen 100 mg/L
- phenolic compounds 1 mg/L

The above parameters are pollutants which can be treated at sewage works. The concentrations for biochemical oxygen demand and suspended solids chosen as cut-off limits in the by-law are approximately 50% higher than the concentrations at which these pollutants are normally found in domestic or residential sewage. An industry cannot discharge sewage which contains any of these pollutants in excess of the specific limits unless the industry has entered into a surcharge agreement which permits the discharge of this sewage. The requirements for an agreement are discussed in Section III-5.0 (page 44).

Explanation 10 - Subclause 2(1)2.(n)

The discharge of sewage consisting of two or more separate layers is prohibited because an immiscible layer of liquid would not be effectively treated in a sewage works.

Explanation 11 - Subclause 2(1)2.(o)

The discharge of sewage containing dyes or colouring materials which pass through a sewage treatment plant and discolour the effluent is prohibited. This section allows the discharge of dyes or colouring materials if they don't discolour the sewage treatment plant effluent or cause any other problems identified in Clause 2(1)1. of the by-law. Before the initiation of prosecution for a violation of this section, the municipality must (1) have a discoloured effluent from its sewage treatment plant and (2) identify the source of the dye or colouring materials causing the problem.

Explanation 12 - Subclause 2(1)2.(p)

Specific limits for parameters which are commonly found in sewage treatment plant influent and effluent in concentrations which cause contravention of one or more of the provisions of Clause 2(1)1. of the by-law are included in this section of the by-law. The basis for these limits is contained in the Development Document for Discharge Limits to Sanitary and Combined Sewers.

Explanations 13 and 14 - Subclauses 2(1)2.(q) and (r)

The discharge of any one or more of the listed materials is prohibited. It is important to note that:

(1) The definition of PCB is any monochlorinated or polychlorinated biphenyl or any mixture of them or any mixture that contains one or more of them. The definition of PCB Wastes (whose discharge is prohibited in Subclause 2(1)2.(s) of the by-law) includes PCB equipment, PCB liquid, or PCB material with certain exemptions.

The discharge of PCBs containing less than 5 µg/litre is permitted when certain requirements are met as described in Section III - 2.2 (page 32). The 5 ug/litre discharge limit which is contained in Ontario Regulation 148/86 made under the Environmental Protection Act was developed from a study entitled Polychlorinated Biphenyls (PCBs) in Municipal Wastewaters: An Assessment of the Problem in the Canadian Lower Great Lakes, Environmental Protection Service, Environment Canada, Project No. 73-3-8.

(2) The definition for severely toxic material is any material listed in Schedule 3 of Regulation 309 at any concentration. Because of the toxicity of these materials, the discharge of any of these materials in any concentration even if it is incidental to a waste stream is prohibited.

(3) The discharge of hauled sewage and waste disposal site leachate may be permitted if the specific requirements for discharge of these materials are met (see Section III - 2.2 - page 32).

Explanation 15 - Clause 2(1)2.(s)

The discharge of the following hazardous wastes is prohibited:

- acute hazardous waste chemicals;
- hazardous industrial wastes;
- hazardous waste chemicals;
- ignitable wastes;
- pathological wastes;
- PCB wastes; and
- reactive wastes.

The definitions for these hazardous wastes are either the exact definitions found in Ontario Regulation 309 or a modification of these definitions.

2.1.1 **Application of Hazardous Waste Definitions to Discharges to Sanitary or Combined Sewers**

Regulation 309 deals specifically with registration and reporting requirements and does not address the prohibition and regulation of discharges to sewage works. In order to better understand this section of the by-law, the application of the Regulation 309 definitions to discharges to sanitary and combined sewers is discussed in the following paragraphs:

Acute Hazardous Waste Chemicals and Hazardous Waste Chemicals

The acute hazardous waste chemicals and hazardous waste chemicals are the commercial waste chemicals listed in Parts A and B of Schedule 2 in Regulation 309, respectively. To apply these definitions to sewer discharges, the definition for commercial waste chemical must be examined. In Regulation 309, a commercial waste chemical means a waste that is or contains a commercial chemical product or manufacturing chemical intermediate of a specific generic name and includes,

(i) an off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the specified generic name;

(ii) residues or contaminated material from the clean-up of a spill of a commercial chemical product or manufacturing chemical intermediate of the specified generic name or of an off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the specified generic name; or

(iii) an empty container or the liner from an empty container that contained a commercial chemical product or manufacturing chemical intermediate of the specified generic name, or an off-specification commercial chemical intermediate which, if it met specifications, would have the specified generic name, or residues or contaminated materials from the clean-up of a spill of any of them, unless the empty container or the liner from the empty container has been triple rinsed,

but, except as specified in subparagraph i, ii or iii, does not include a waste stream or waste material contaminated with material of the specified generic name.

In summary, acute hazardous waste chemicals or hazardous waste chemicals are commercial products or manufacturing intermediates which from time to time are off-specification, or otherwise unacceptable for use. The only commercial waste chemicals regulated in Regulation 309 are those which are described in subparagraphs (i), (ii), and (iii) of the definition. IT IS IMPORTANT TO NOTE THAT SCHEDULES 2(A) AND 2(B) ARE NOT LISTS OF CONTAMINANTS THAT, IF PRESENT IN A WASTE STREAM, MAKE THE STREAM HAZARDOUS. Essentially Schedules 2(A) and 2(B) are lists of products or by-products which are seldom disposed of but occasionally become wastes.

In other words, waste streams which contain the waste chemicals in Schedules 2(A) and 2(B), are not included in the definition of commercial waste chemicals and therefore can be discharged. Examples illustrating this concept are included in Table III - 1 (page 26).

Hazardous Industrial Wastes

The hazardous industrial wastes are wastes listed in Schedule 1 of Reg. 309. This Schedule essentially contains descriptions of both generic and process specific waste streams.

The discharge to sewage works of any of the waste streams listed in Schedule 1 is prohibited. However, waste streams which are incidentally contaminated with the waste streams in Schedule 1, are not considered listed wastes in Schedule 1 and therefore can be discharged. Examples illustrating this concept are included in Table III - 1 (page 26).

Ignitable Wastes

Ignitable waste as defined in Regulation 309 is a waste that:

(i) is a liquid, other than an aqueous solution containing less than 24 per cent alcohol by volume and has a flash point less than 61° Celsius, as determined by the Tag Closed Cup Tester (ASTM D-56-79), the Setaflash Closed Cup Tester (ASTM D-3243-77 or ASTM D-3278-78), the Pensky-Martens Closed Cup Tester (ASTM D-93-79), or as determined by an equivalent test method approved by the Director (examples - ethanol, varsol, gasoline, petroleum distillates, paint thinners);

Table III-1
Examples Illustrating the Application of Regulation 309 Definitions for Hazardous Wastes to Discharges to Sanitary or Combined Sewers

WASTE TYPE	DISCHARGE PROHIBITED	IS ALLOWED[1]	REASON
1. Plating bath sludges from bottom of plating baths from electroplating operations where cyanides are used in the process.	X		Hazardous industrial waste listed in Schedule 1 of Regulation 309.
2. A small quantity of sludge (in 1.) spilled onto floor and rinsed into sewer.		X	Not considered a listed waste in Schedule 1 of Regulation 309.
3. Spent halogenated solvent used in degreasing: tetrachloroethylene.	X		Hazardous industrial waste listed in Schedule 1 of Regulation 309.
4. Rinse from the washing of container which held tetrachloroethylene (in 3).		X	Not considered a listed waste in Schedule 1 of Regulation 309.
5. Off-specification acetone.	X		Waste listed in Schedule 2(B) of Regulation 309.
6. Rinse from the washing of a container which held acetone used in a laboratory.		X	Not considered a listed waste in Schedule 2(B) of Regulation 309.
7. 2,3,7,8-Tetrachlorodibenzo-p-dioxin in waste stream at .2 parts per million.	X		Discharge of any material listed in Schedule 3 at any concentration prohibited in by-law.
8. Sulphide waste which when exposed to pH conditions between 2.0 and 12.5 can generate toxic gases or fumes.	X		Waste classified as reactive in Regulation 309[2].

1. This discharge is allowed if it meets all the other provisions of the sewer use by-law.
2. This definition applies at the sampling points not at the end-of-process (See Section III - 2.1.2, page 31).

(ii) is a solid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a danger (e.g. charcoal);

(iii) is an ignitable compressed gas (Class 2, Division 1) as defined in the regulations under the Transportation of Dangerous Goods Act (Canada) (e.g. methane, butane, propane), (Note: This clause is not applicable to discharges to sewage works); and

(iv) is an oxidizing substance (Class 5, Divisions 1 and 2) as defined in the regulations under the Transportation of Dangerous Goods Act (Canada) (e.g. chlorates, permanganates, nitrates).

Ignitable wastes are characteristic wastes, i.e. they have certain specific properties which determine if they are ignitable. The determination of whether a waste is ignitable would be based on a sample taken at the designated sampling location, after all waste streams from the facility have been combined. (See Section III - 2.1.2, page 31)

Pathological Wastes

The definition of Pathological Wastes in the by-law has been slightly modified from the definition in Regulation 309. In Regulation 309, Pathological Waste is defined as:

(i) any part of the human body, including tissues and bodily fluids, but excluding fluids, extracted teeth, hair, nail clippings and the like, that are not infectious;

(ii) any part of the carcass of an animal infected with a communicable disease or suspected by a licensed veterinary practitioner to be infected with a communicable disease; or

(iii) non-anatomical waste infected with communicable disease.

The definition for pathological waste in the by-law has been modified to include the Regulation 309 definition for pathological waste or any material which may be designated in writing by the Chief Medical Officer of Health. There are two exemptions in the by-law relating to the discharge of pathological wastes. The discharge of pathological wastes (1) which are found in human waste or (2) which have been decontaminated prior to discharge and approved by MOE and the municipality is permitted.

PCB Wastes

The definition of PCB wastes in the by-law is PCB waste as defined in Ontario Regulation 146/86. Ontario Regulation 146/86 defines PCB wastes as:

(i) PCB equipment;
(Note: This does not apply to discharges to sewage works).

(ii) PCB liquid; or

(iii) PCB material,

but does not include,

(iv) PCB material or PCB equipment after it has been decontaminated pursuant to guidelines issued by the Ministry of the Environment or instructions issued by the Director;

(v) PCB equipment that is,

(A) an electrical capacitor that has never contained over one kilogram of PCBs;

(B) electrical, heat transfer or hydraulic equipment or a vapour diffusion pump that is being put to the use for which it was originally designed or is being stored for such use by a person who uses such equipment for the purpose for which it was originally designed; or

(C) machinery or equipment referred to in sub-clause (vi)(A), or

(Note: This section does not apply to discharges to sewage works.)

(vi) PCB liquid that,

(A) is at the site of fixed machinery or equipment, the operation of which is intended to destroy the chemical structure of PCBs by using the PCBs as a source of fuel or chlorine for purposes other than the destruction of PCBs or other wastes and with respect to which a certificate of approval has been issued under Section 8 of the Act after the 1st day of January, 1981 specifying the manner in which PCB liquid be processed in the machinery or equipment; or

(B) is in PCB equipment referred to in sub-clause (v)(B). O. Reg. 11/82, s. 1; O. Reg. 575/84, s. 1.

PCB materials in Regulation 146/86 means materials containing PCBs at a concentration of more than fifty parts per million by weight whether the material is liquid or not.

The discharge of any PCB wastes to the sewage works is prohibited. In addition the discharge of PCBs is prohibited (see Explanation 13 on page 22).

Reactive Wastes

Reactive Waste as defined in Regulation 309 is a waste that:

(i) is normally unstable and readily undergoes violent change without detonating;

(ii) reacts violently with water;

(iii) forms potentially explosive mixtures with water;

(iv) when mixed with water, generates toxic gases, vapours or fumes in a quantity sufficient to present danger to human health or the environment;

(v) is a cyanide or sulphide bearing waste which, when exposed to pH conditions between two and 12.5, can generate toxic gases, vapours or fumes in a quantity sufficient to present danger to human health or the environment;

(vi) is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;

(vii) is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or

(viii) is an explosive (Class 1) as defined in the regulations under the Transportation of Dangerous Goods Act (Canada).

The determination of whether a waste is reactive would be based on a sample taken at the designated sampling location, after all the waste streams from the facility have been combined.

2.1.2 Sampling Points for Determination of Compliance

In order to determine whether the discharge from an industrial facility is in compliance with the by-law limits, in general a sample will be taken at the specified or designated sampling point and analyzed to determine if the contents of the discharge exceed any of the by-law limits.

For any of the parameters covered in clauses 2(1)2.(e), (f), (g), (h), (i), (j), (k), (l), (m), (n) and (p), the discharge limit applies to a sample taken at the specified or designated sampling point after all the waste streams from the facility have been combined (end-of-pipe).

For the hazardous wastes which are covered in clauses 2(1)2.(q), (r), and (s), the discharge limit applies at a different point depending on the type of hazardous wastes. For ignitable or reactive wastes, which have characteristic properties, the limit of zero discharge also applies at the specified or designated sampling point after all wastes have been combined. Thus, a waste which is ignitable or reactive at the point of discharge to the sewer may not be ignitable or reactive at the end of the pipe, because it has lost its characteristic properties through the dilution occurring from the combining of the other waste streams from the facility. For all the other wastes listed in clauses 2(1)2.(q), (r), and (s), the limit of zero discharge applies at the point of discharge to the sewer. In this case, dilution occurring from the combining of other waste streams from the facility does not change the hazardous waste definition of the waste. In fact, adding a hazardous waste stream of any of the hazardous wastes, except ignitable and reactive, to another waste stream would make the combined stream a hazardous waste within the definition of Regulation 309.

2.2 Additional Provisions of Section 2 of the By-law

Subsection 2(2)

Dilution is prohibited. Although the concentration-based limits in the by-law provide a simple and extremely effective enforcement mechanism, dischargers may attempt to use dilution to comply with the limits. To detect dilution, the municipality should inspect any pretreatment facilities and/or plant piping to determine if there are any permanent connections for dilution water. Also, if the municipality suspects dilution, a review of historical water usage should be done to determine if dilution is occurring.

Subsection 2(3)

The provisions of Sections 2(1)2.(b) and 2(1)2.(s) do not apply to the discharge of human waste (waste originating from the human body).

Subsection 2(4)

The provisions of Subclause 2(1)2.(d) apply as follows:

1. Water taken in an amount greater than 50,000 litres may be discharged if the owner or operator of the premises has a Permit to Take Water issued by MOE and provided to the municipality. (This permit is required by Subsection 20(3) of the Ontario Water Resources Act). The owner or operator can apply for a Permit to Take Water at the appropriate MOE Regional Office (listed in Appendix 4).

2. Water taken in an amount less than 50,000 litres per day may be discharged if the owner or operator of the premises simply provides the municipality with the information specified in clause 2(4)(b) of the by-law.

The purpose of this provision is to provide a mechanism for a municipality to quantify the different sources of water being used by a particular premise in order to calculate the appropriate sewer use charges for that premise.

Subsection 2(5)

The provisions of Clause 2(1)2.(q) do not apply to waste radioactive materials discharged from a facility with a licence from the Atomic Energy Control Board or to the discharge of de minimis waste.

De minimis waste as defined in the by-law means any waste radioactive material that will not result in a dose of radiation exceeding the de minimis dose (.05 millisieverts per year) regardless of the quantity of the material or how it is used or managed.

Subsections 2(6) and 2(7)

The discharge of waste containing PCBs in a concentration less than 5 µg/litre or waste disposal site leachate is allowed when:

1. The owner or operator has a Certificate of Approval from MOE or written approval from the Director of MOE;
2. The owner or operator has written approval from the municipality; and
3. A copy of the Certificate of Approval or written approval from the Director of MOE has been provided to the municipality.

Section 2(8)

The discharge of hauled sewage (which is sewage from any private sewage system) is permitted under the following conditions:

1. The carrier of the hauled sewage has a licence from MOE;

2. The carrier has written approval from the municipality for a specified time and location; and
3. The discharge occurs at the approved time and location.

Subsection 2(9)

The discharge of pathological waste which has been decontaminated prior to discharge is permitted when

1. The owner or operator has a Certificate of Approval from the Director of MOE;
2. The owner or operator has written approval from the municipality; and
3. A copy of the Certificate of Approval or written approval from the Director of MOE has been provided to the municipality.

The purpose of this provision is to provide a mechanism by which a facility such as a hospital can discharge decontaminated pathological wastes to the sewage works with the approval of the municipality and MOE.

The purpose of decontamination is to treat the pathological waste in order to eliminate its potential or capability for causing disease. There are several decontamination procedures which can be used for treating liquid pathological wastes including steam sterilization and chemical disinfection. Information on decontamination processes for treatment of pathological wastes can be found in the U.S. EPA Guide for Infectious Waste Management, May 1986. In accordance with the by-law, an acceptable decontamination process must be approved by the municipality and MOE.

Figure 1

Section 2- Sewer Use By-Law

Discharge of the following types of sewage to sanitary and combined sewers is prohibited:

Clause 2(1) 1.

Environmental Concerns

Matter which causes:
1. health or safety hazard to a sewage works employee
2. mechanical failure of sewage works
3. STP effluent to contravene OWRA or EPA
4. failure of sludge to meet criteria for agricultural use
5. interference with sewage works or operation of treatment process
6. hazard to any person, animal, property or vegetation

EXPLANATION 1

Clause 2(1) 2.
General Prohibited Discharges

Solid or viscous substances capable of causing obstruction of flow
Explanation 2

Sewage causing offensive odours
Explanation 3

Stormwater, water drainage, water from water course or uncontaminated water to sanitary sewers
Explanation 4

Water from a separate source
Explanation 5

Sewage with temp > 85^{0} Celsius
Explanation 6

Sewage with pH < 5.5 or > 9.5
Explanation 7

Sewage with > 15 mg/l SEM of mineral or synthetic origin
Explanation 8

Sewage With
> 150 mg/l SEM of animal or vegetable origin
> 300 mg/l BOD
> 350 mg/l SS
> 10 mg/l P
> 100 mg/l Kjeldahl
> 1 mg/l Phenolic compounds
Explanation 9

Agreement for Overstrength Sewage

Sewage consisting of 2 or more liquid layers
Explanation 10

Sewage with dyes or colouring materials which pass through STP and discolour the effluent
Explanation 11

Clause 2(1) 2.
Specific Limitations

1500 mg/liter
Cl, SO4
50 mg/liter
Al, Fe
10 mg/liter
F
5 mg/liter
Sb,Bl,Cr,Co,Pb,Mn
Mo,Se,Ag,Sn,Tl,V
3 mg/liter
Cu,Ni,Zn
2 mg/liter
CN(total)
1 mg/liter
As,Cd
0.1 mg/liter
Hg
Explanation 12

ZERO DISCHARGES

None of the following:
Fuels
Pesticides
PCBs
Severely Toxic Materials
Waste Radioactive Materials
Explanation 13

Discharge of the following is permitted under certain conditions:
Water from a separate source
PCB'S
Hauled Sewage
Waste Disposal Site Leachate

None of the following:
Hauled Sewage
Waste Disposal Site Leachate
Explanation 14

None of the following
Acute Hazardous Waste Chemicals
Hazardous Industrial Wastes
Hazardous Waste Chemicals
Ignitable wastes
Pathological Wastes
PCB Wastes
Reactive Wastes
Explanation 15

3.0 Section 3 - Discharges to Storm Sewers

3.1 Prohibited Discharges

The prohibited discharges to the storm sewers are contained in Subsection 3(1) of the by-law. To assist in the discussion of Subsection 3(1) of the by-law, a schematic diagram of prohibited discharges is shown in Figure 2. The following explanations refer to Figure 2.

Explanation 1 - Clause 3(1)1. of By-law

Discharges to the storm sewer system can create serious problems because toxic and harmful pollutants in these discharges go without treatment into the receiving water body. In Clause 3(1)1. of the by-law, the discharge of any matter which creates the following problems is prohibited:

1. Interference with proper operation of storm sewer.
2. Obstruction of the flow in storm sewer.
3. Hazard to any person, animal, property, or vegetation.
4. Impairment of water quality in receiving water body.
5. Effluent from storm sewer discharge contravenes requirements of the Ontario Water Resources Act or Environmental Protection Act.

Explanation 2 - Clause 3(1)2.(a)

The discharge of uncontaminated water at a temperature greater than 40° Celsius is prohibited to protect the water quality of the receiving water body.

Explanation 3 - Clause 3(1)2.(b)

The discharge of water having a pH less than 6.0 or greater than 9.0 is prohibited to protect water quality of the receiving water body.

Explanation 4 - Clause 3(1)2.(c)

The discharge of water containing more than 15 milligrams/litre of suspended solids is prohibited. This limit is based on the Objectives for the Control of Industrial Waste Discharges in Ontario.

Explanation 5 - Clause 3(1)2.(d)

The discharge of water containing dyes or colouring materials which discolour water is prohibited to protect the aesthetic quality of the receiving water body.

Explanation 6 - Clause 3(1)2.(e)

The discharge of water containing solvent extractable matter of animal or vegetable origin or of mineral or synthetic origin which causes a visible film, sheen, or discolouration is prohibited. This prohibition is based on the provincial water quality objective found in the Blue Book.

Explanation 7 - Clause 3(1)2.(f)

The specific discharge limits for chromium, zinc, lead, nickel and copper are 1.5-2 times the provincial water quality objectives, while the specific discharge limits for cadmium and mercury are 5 times the provincial water quality standards. The application of these limits to storm sewer discharges is discussed in Section III - 3.2 (page 38). The metals chosen for control in discharges to storm sewer are the metals for which limits are given in the Objectives for the Control of Industrial Waste Discharges in Ontario published by the Ministry of the Environment.

Explanation 8 - Clause 3(1)2.(g)

The discharge of sewage, once-through cooling water and blowdown to storm sewers is prohibited. However, the discharge of once-through colling water and blowdown are permitted if certain requirements are met. (see Section III - 3.2, page 38).

Explanation 9 and 10 - Clause 3(1)2.(h) and (i)

The discharge of the following materials is prohibited:

- automotive and machine oils and greases
- fuels
- paints and organic solvents
- PCBs
- pesticides
- severely toxic materials
- waste disposal site leachate
- waste radioactive materials
- acute hazardous waste chemicals
- hazardous industrial wastes
- hazardous waste chemicals
- ignitable wastes
- pathological wastes
- PCB wastes
- reactive wastes

The hazardous waste definitions from Regulation 309 are discussed in Section III - 2.1.1 (page 23).

NOTE: The limits for stormwater discharges in subclauses 3(1)2.(c) (d),(e),(f),(h), and (i) are intended as "trigger" levels for further action in the case of stormwater discharges from industrial process areas. For example, if a municipality samples a stormwater discharge from an industrial facility and finds that the discharge exceeds any of the limits in one of the above subclauses, the municipality will then require that industry to prepare and implement a Best Management Plan to address the problem stormwater discharges. Additional information on Best Management Plans is contained in Section III-3.2 and Appendix 1.

3.2 Additional Provisions of Section 3 of the By-law

Subsection 3(2)

The discharge of once-through cooling water and blowdown is permitted when,

1. the owner or operator has a certificate of approval from MOE or written approval from the Director of MOE; and
2. the owner or operator has written approval from the municipality; and
3. a copy of the certificate of approval or written approval has been provided to the municipality.

Subsection 3(3)

All the general prohibitions and specific discharge limits for discharges to storm sewers apply to two specific cases only:

1. Discharge of stormwater runoff from industrial process areas. The term "industrial process area" is defined in Section 1 of the by-law and includes manufacturing, processing, and storage areas but does not include parking lots, driveways, lawns, and roof drains unless they fall into the category of industrial process areas as defined in the by-law.

2. Discharge of stormwater to which a person has purposely added matter prohibited by subsection 3(1) of the by-law in order to dispose of it.

In general, residential areas and streets, parking areas, driveways are exempt from the provisions of subsection 3(1) except in the case where someone has purposely added matter prohibited by the by-law to stormwater from any area (including residential) to dispose of it.

Subsection 3(4)

The provisions of Subclauses 3(1)2.(c),(d),(e), and (f) of the by-law do not apply to industrial stormwater discharges if the industry has either a Best Management Practices (BMP) plan which has been approved by the municipality or a certificate of approval or order under the EPA or OWRA.

The purpose of the Best Management Practices (BMP) Plan is to

prevent any unnecessary discharges and to minimize any unpreventable discharges of contaminated stormwater to storm sewers resulting from activities associated with or ancillary to industrial manufacturing or treatment processes. The BMP Plan will meet the requirements specified in Schedule A of the by-law. Guidelines for preparing a BMP Plan are contained in Appendix 1.

To enforce this section, the following mechanism would be used:

1. The municipality would sample and analyze the stormwater discharges from an industrial process area.
2. If it is determined that this discharge exceeds any of the limits in Subclauses 3(1)2.(c),(d),(e), and (f) the municipality would notify the industry that it will be required to prepare and implement a Best Management Practices Plan in accordance with Schedule A of the by-law.
3. A meeting would be held with municipality staff and the industry's representative to explain and discuss the details of the BMP Plan. Guidance would be provided by MOE staff.
4. The industry would be required to submit to the municipality a BMP Plan for review and approval within a specified time period determined by the municipality.

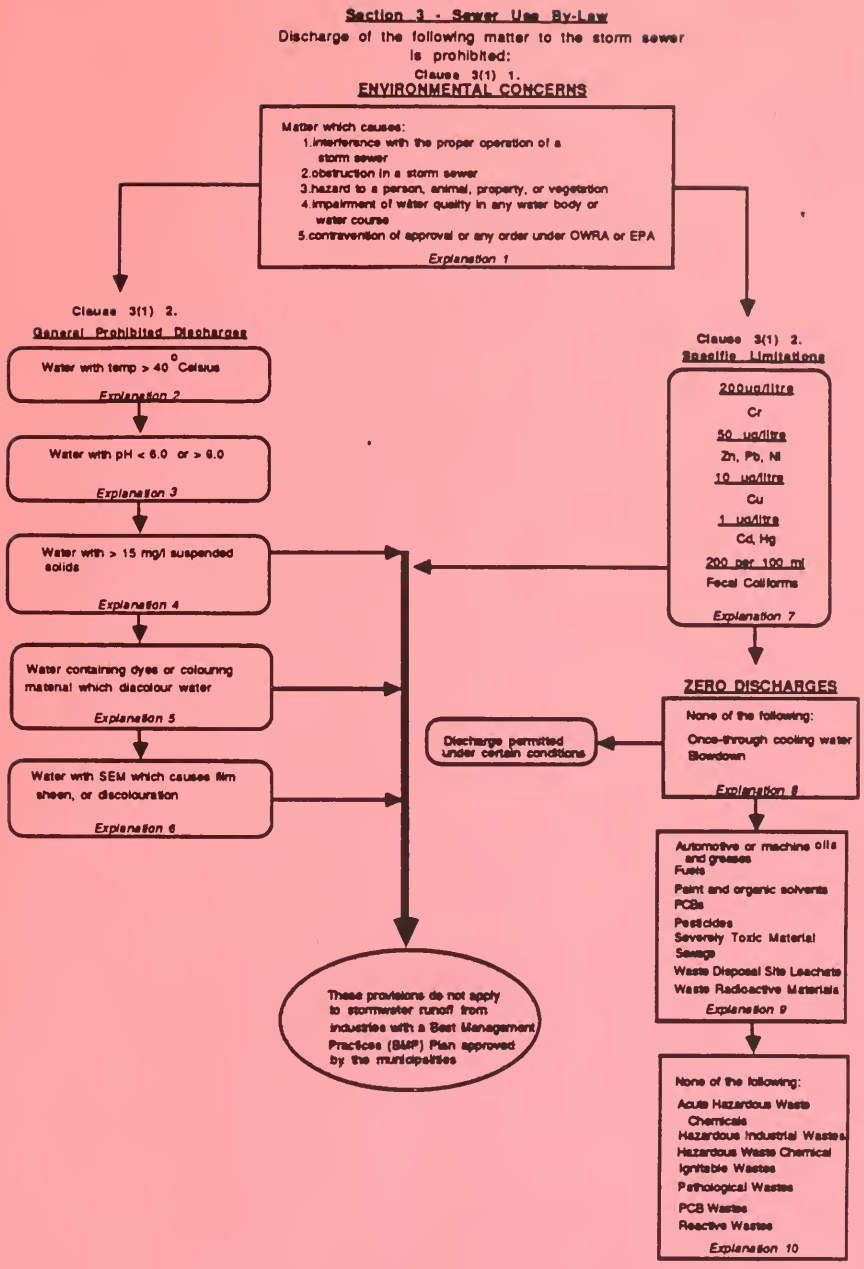
In general, a BMP Plan should be approved and in place within 120 days of the initial notification of the industry that a BMP is required.

4.0 Section 4 - Waste Survey Reports

The purpose of the Waste Survey Report is to identify the industries which discharge to a municipality's sewage works and to characterize the discharges from these industries.

The Ministry is developing an Industrial Discharge Management Information System (IDMIS) to establish and maintain an inventory of the industries in any given municipality in

FIGURE 2


Section 3 - Sewer Use By-Law
Discharge of the following matter to the storm sewer is prohibited:
Clause 3(1) 1.
ENVIRONMENTAL CONCERNS
Matter which causes:
1. interference with the proper operation of a storm sewer
2. obstruction in a storm sewer
3. hazard to a person, animal, property, or vegetation
4. impairment of water quality in any water body or water course
5. contravention of approval or any order under OWRA or EPA
Explanation 1
Clause 3(1) 2.
General Prohibited Discharges
Water with temp > 40 °C Celsius
Explanation 2
Water with pH < 6.0 or > 9.0
Explanation 3
Water with > 15 mg/l suspended solids
Explanation 4
Water containing dyes or colouring material which discolour water
Explanation 5
Water with SEM which causes film sheen, or discolouration
Explanation 6
Clause 3(1) 2.
Specific Limitations
200 ug/litre
Cr
50 ug/litre
Zn, Pb, Ni
10 ug/litre
Cu
1 ug/litre
Cd, Hg
200 per 100 ml
Fecal Coliforms
Explanation 7
ZERO DISCHARGES
None of the following:
Once-through cooling water
Blowdown
Explanation 8
Discharge permitted under certain conditions
Automotive or machine oils and greases
Fuels
Paint and organic solvents
PCBs
Pesticides
Severely Toxic Material
Sewage
Waste Disposal Site Leachate
Waste Radioactive Materials
Explanation 9
None of the following:
Acute Hazardous Waste Chemicals
Hazardous Industrial Wastes
Hazardous Waste Chemical Ignitable Wastes
Pathological Wastes
PCB Wastes
Reactive Wastes
Explanation 10
These provisions do not apply to stormwater runoff from industries with a Best Management Practices (BMP) Plan approved by the municipalities

Ontario. The information currently in the IDMIS database files includes each industry's address, the Standard Industrial Classification code, the sewage treatment plant to which the industry's waste is discharged, and an industry contact person. The Ministry will provide the appropriate IDMIS files to each municipality.

To implement this section, the following activities should be performed:

1. Utilizing the IDMIS files provided by MOE as a starting point, the municipality would compile a master list of all the industries discharging wastes to its sewage works which fall into any of the categories listed in Schedule B of the by-law from sources such as City industrial directories, utility billing records, property tax records, and local telephone directories.
2. The municipality would notify these industries of the sewer use by-law requirements and request each industry to complete a Waste Survey Report as shown in Schedule B1 of the by-law. The notification may be done by mail or possibly through a workshop for all the affected industries.
3. The industry should complete the Waste Survey Report as completely and accurately as possible. If the industry has a question regarding the report form, it should direct that question to the municipality for clarification.
4. Each completed Waste Survey Report should be reviewed by the municipality as to the accuracy and completeness of the report and to determine if the industry is potentially a major discharger to the sewage works (see 8 on page 43).
5. The information from the submitted Waste Survey Reports should be added to the IDMIS files.
6. Follow-up letters or telephone calls should be made to industries which don't complete the Waste Survey Reports. If they refuse to fill out the Waste Survey Report, the possibility of prosecution for violation of the by-law should be considered by the municipality.

7. After the initial compilation of industries has been completed, an annual update of this information should be performed. In addition, a mechanism should be established such that any new industry which submits plans through the building department should be reviewed to determine if its wastewater discharge will meet the by-law requirements or if pretreatment will be required.
8. Utilizing the revised list of industries in the IDMIS files, the municipality should determine which industries might be major dischargers to the sewage works on the basis of criteria developed to assess the impact of the discharger's sewage on the sewage works and processes.
9. A site inspection should be performed at the facility of each major discharger to review the information in the Waste Survey Report, to familiarize the inspector with the facility, and to identify potential sampling points. A site inspection should be performed at least once each year.
10. After the major industrial dischargers have been identified and inspected, the municipality should develop monitoring schedules for these industries. Examples of monitoring schedules are given in Section III - 7.3 (page 50).

4.1 Information Available to the Public

The public should have access to the following information in the Waste Survey Report:

- Name and address of company
- U.S. and Canadian SIC codes
- Number of sewer connections
- Regulation 309 information - Waste Numbers
- Waste flow and characteristics

5.0 Section 5 - Agreements

The purpose of an agreement is to provide a mechanism by which wastewater, which exceeds the by-law limits for pollutants that can be treated at the STP, can be discharged on a fee basis. Agreements can be made for the following pollutants:

- suspended solids
- biochemical oxygen demand
- phenolic compounds
- solvent extractable matter of animal or vegetable origin
- Kjeldahl nitrogen
- phosphorus

The decision to enter into an agreement for any one or all of the listed pollutants should be determined by the municipality based on its STP capability and capacity. For example, a sewage treatment plant, which does not have phosphorus removal capability but has excess BOD treatment capacity should not make agreements to accept sewage containing excess phosphorus but should make agreements to accept sewage with excess BOD. The municipality is responsible for determining the total loadings for the listed pollutants covered under all the agreements, in order to ensure that the total loadings do not exceed the STP capacity.

Because the agreement is generally set-up to be a long-term arrangement between an industry and municipality, the municipality should carefully evaluate the potential long term impact of each agreement before entering into it. In addition, the industry should be encouraged to perform an economic evaluation of the option of pretreating the sewage prior to discharge to the sewage works versus the option of entering into a surcharge agreement.

5.1 Agreement Form

The following items regarding the agreement form should be noted:

1. Even though the agreement allows the discharge of sewage which exceeds the by-law limits, the agreement contains maximum limits for the waste flow and the concentration of listed pollutants which, if exceeded, constitute a violation of the agreement and the by-law.

2. The municipality may terminate the agreement under the following conditions:

   (i) on 30 days written notice if the sewage discharge causes contravention of Clause 2(1)1. of the by-law;
   (ii) at any time by written notice in the event of an emergency situation; or
   (iii) within the time limits specified in the agreement if during the renewal of an agreement, the municipality and the company cannot agree on a new fee or new limits.

3. The fee charged for excess concentrations of the pollutants will be determined by the municipality. The municipality should ensure that the fees charged for excess loadings are sufficient to cover operation and maintenance costs as well as costs for capital equipment replacement. The following two publications discuss user charges and surcharges in detail and contain examples of the calculation of user fees:

   - User Charge Guidance Manual for Publicly-Owned Treatment Works, EPA, June 1984

- Sewer Charges for Wastewater Collection and Treatment - A Summary, WPCF, 1982

4. The sampling schedule for monitoring the concentration of the listed pollutants to determine the fee in the agreement will be developed by the municipality. (A typical sampling schedule is presented in Section III - 7.3, page 50.

5. Whenever the municipal STP is operated by MOE, MOE will be required to review and approve the agreement.

6. In the case where the pollutant covered by the agreement may have an effect on sewers of a second municipality, (e.g. where the sewage first runs through an area municipality's collector sewers before entering a regional municipality's sewage works) the second municipality will be required to review and approve the agreement.

6.0 Section 6 - Compliance Program

The purpose of the compliance program is to provide a flexible mechanism for industries in noncompliance to install the appropriate pretreatment equipment or facilities required for compliance with the by-law.

To obtain a compliance program, an industry would submit a request which includes a list of major activities for the compliance program with scheduled commencement and completion dates. The municipality will review the proposed program and schedules and determine if they are acceptable. If the proposed program and schedule are not acceptable, the municipality will negotiate with the industry until the program and schedule are acceptable to both the municipality and the industry. The municipality will send a copy of the compliance program as

shown in Schedule D of the By-law to the industry which must then sign and return a copy to the municipality within 30 days.

6.1 Compliance Program and Compliance Program Progress Report

The following items regarding the compliance program should be noted:

1. The compliance program contains maximum limits for specified parameters in place of the by-law limits. Thus, under the compliance program an industry may exceed the by-law limits for the specified parameters, but may not exceed the compliance program limits for the specified parameters. Exceeding the limits for the specified parameters in the compliance program would constitute a violation of the compliance program and of the by-law. Exceeding any other limits in the by-law would constitute a violation of the by-law.

2. Whenever the municipal STP is operated by MOE, MOE will be required to review and approve the compliance program.

3. In the case where the sewage covered by the compliance program may have an effect on a second municipality (e.g. the sewage passes through an municipality's sewer before entering the regional municipality's sewage works), the second municipality will be required to review and approve the compliance program.

4. The municipality may terminate the compliance program on 30 days written notice if the sewage discharge causes contravention of Clause 2(1)1. of the by-law or at any time by written notice in the event of an emergency situation.

Once the program activities have been initiated, the industry will be required to submit a compliance program progress report as shown in Schedule E of the by-law within 14 days after the scheduled completion date for each activity listed in the compliance program. Failure to submit the compliance program progress report would constitute a violation of the by-law.

7.0 Section 7 - Sampling and Analysis

7.1 Sample Type

For the purposes of the by-law, three types of sampling may be utilized:

Grab samples - an aliquot of the wastewater taken at one particular time and place. This type of sample is easy to obtain and requires little time.

Simple composite sample - composed of a series of grab samples taken at specific time intervals during the sampling period. This type of sample requires a greater amount of time and may be done using an automatic sampler.

Flow-proportioned composite sample - composed of incremental samples collected with volumes which are proportional to flow. This type of sample also requires a greater amount of time and is usually done using an automatic sampler.

It should be noted that in the event that a continuous pH or temperature monitor is utilized, no samples are needed for pH or temperature measurement. In this case, the analytical measurements are taken directly from the monitor.

The type of sample which the municipality decides to use is dependent on several factors including available manpower and equipment and the reason for sampling (routine or enforcement). The routine sampling of major industrial discharges is discussed in detail in Section III-7.3, while noncompliance or enforcement sampling is discussed in Section III-7.4 (page 50-51).

7.2 General Sampling Methodology

These general points should be considered when sampling industrial dischargers:

1. Samples must always be collected at the specified location which has been designated for a particular industry. The designated sampling point should be located at the end-of-pipe (i.e. after all waste streams from the industry have been combined) but where no discharges from other industries are included. In the case where there is a stormwater connection to the sewer pipe, the sampling point should be located after all the waste streams have been combined but before the stormwater connection. (For certain types of hazardous wastes, the designated sampling point is not used. See Section III-2.1.2, page 31.)
2. Samples should be collected during the industry's regular working hours to obtain representative samples.
3. Samples should be properly preserved and stored from the time at which they are collected according to the procedures described in Standard Methods.
4. The municipality should use the appropriate sample labelling and transport procedures described in the following 2 reports:

    - A Guide to the Collection and Submission of Samples for Laboratory Analysis, MOE, July, 1977.

    - Legal Samples: Laboratory Handling Protocol for the Laboratory Services Branch.

    Use of chain-of-custody procedures described in the above reports will ensure that the sample can be used for enforcement if required.

5. Periodically, the municipality should encourage the industrial discharger to split samples and have the samples analyzed by an independent laboratory.

7.3 Routine Sampling

The municipality should develop a routine sampling schedule to be carried out by the municipality for each major industrial discharger. The schedule may take into consideration numerous factors including:

- volume of the industrial discharge
- type and concentration of pollutants in the discharge
- seasonal production variations
- adequacy of treatment and expected variability of discharge level
- industrial discharger has been known or suspected to cause problems in sewage works
- past history of noncompliance

An example of a monitoring schedule based on volume of the industrial discharge is presented in Table III-2.

Table III-2 Sample Monitoring Schedule

Industry Flow (average gallons per day)	Monitoring Frequency (Municipality)
0 - 10,000	1 per year
10,001 - 25,000	1 per 6 months
25,001 - 50,000	1 per 4 months
50,001 - 100,000	1 per 2 months
greater than 100,000	1 per month

The schedule must obviously take into consideration the available resources for conducting the sampling activities but should include at least one monitoring sample per year for each major industrial discharger.

Routine sampling may be done with or without prior notification to the industrial discharger. For example, if the municipality would like to conduct an inspection along with the sampling activity, the municipality may want to notify the industrial discharger to ensure access to the property.

The basic objective of the routine sampling is to determine compliance of the industrial discharge with the sewer use by-law.

7.4 Unscheduled Sampling

Unscheduled or demand sampling is conducted under circumstances such as the following:

(i) spill into the sewage works which interferes with the sewage treatment plant processes;
(ii) routine sampling indicates a major problem of noncompliance with an industrial discharge;
(iii) complaint by a resident of odour problems possibly caused by industrial discharge; or
(iv) emergency situation at sewage treatment plant such as explosion.

The purpose of the unscheduled sampling is to:

(i) identify the source of the discharge causing a problem;
(ii) assess the characteristics and the degree of hazard associated with the discharge;
(iii) identify and initiate any required corrective actions to stop the discharge; or
(iv) obtain information for enforcement actions.

Any samples taken during routine or unscheduled sampling should follow the appropriate procedures to ensure that the sample data will be admissible in court.

7.5 Analysis and Quality Assurance/Quality Control

For the purposes of this by-law, the analysis of sewage, uncontaminated water, and stormwater shall be performed according to the procedures in:

1. Standard Methods for the Examination of Water and Wastewater published by APHA, AWWA and WPCF. The specific method number for each parameter is included in the definition for that parameter in Section 1 of the by-law. Quality control is discussed in general in Standard Methods.
2. Catalogue of MOE analytical methods. MOE is in the process of compiling a catalogue of analytical methods. Each written analytical method will include a discussion of the method, sample preservation and storage requirements, analytical procedures and quality assurance/quality control requirements. Request for the catalogue of MOE analytical methods can be made to the Laboratory Services Branch at 235-5840. The Laboratory Services Branch will send you a catalogue from which you can select and order the desired analytical methods.

The following two general publications on quality assurance and quality control are available from the Ministry:

- Quality Assurance Policy and Guidelines 1986, Laboratory Services Branch, Ministry of the Environment.

- Principles of Control Charting 1984, Laboratory Services Branch, Ministry of the Environment.

It is important to note that all analyses of the wastewater discharge done by either the municipality or the industry must be done according to the procedures in Standard Methods or in the MOE Analytical Methods.

8.0 Section 8 - Spills to Sanitary, Combined, or Storm Sewers

For a spill of any type into a sanitary or combined sewer, the person who spills or causes a spill must do the following:

(i) notify the municipality with the information specified in Subsection 8(5) of the by-law; and
(ii) within five days, submit a written report describing the spill and the actions taken to prevent recurrence.

For a spill of any type into a storm sewer, the person who spills or causes the spill must do the following:

(i) notify the municipality with the information specified in subsection 8(5) of the by-law;
(ii) notify the Ministry of the Environment at 1-800-268-6060;
(iii) notify the owner of the facility if the person who spills or causes the spill is not the owner;
(iv) notify the person having control of the pollutant if the person who spills or causes the spill is not the person having control of the pollutant; and
(v) within five days, submit a written report to the municipality describing the spill and the actions taken to prevent recurrence.

The additional notification for spills into storm sewers is required under Part IX of the Environmental Protection Act. In addition, police and employees of municipalities who are informed of or who investigate a spill into a storm sewer must notify the Ministry if there are reasonable grounds for believing that notice to the Ministry has not been given otherwise.

9.0 Section 9 - General

After a list of major industrial dischargers has been compiled (see Section III - 4.0, page 40), the municipality will need to identify sampling locations and develop compliance monitoring programs for each of the major industries.

9.1 Installation of Manhole

If it is determined from the information in the Waste Survey Report and a site inspection that no sampling location and facility are available, the municipality should require the industry to install a manhole, or alternate device or facility. The manhole, device or facility should be designed and constructed according to the engineering standards or specifications of the municipality.

10.0 Enforcement and Offences

10.1 Enforcement

Specific procedures for enforcement of the by-law are not included in the by-law. However, for effective enforcement of the by-law, it is necessary for the municipality to develop a standard enforcement strategy. Although implementation of the enforcement strategy could vary among municipalities, the following general elements should be considered:

Informal Actions

Informal notice to industrial discharger - The municipality should informally notify the industrial discharger through a telephone call or letter of a minor noncompliance of the by-law.

Informal meeting - If the telephone call or informal letter does not produce compliance, the municipality should meet with representatives of the industrial discharger to identify any problems and to emphasize the importance of maintaining compliance with the sewer use by-law.

Warning letter - This letter is an official written notice to an industry of noncompliance and a request for an explanation and proposed corrective actions to be taken. The warning letter should be sent by personal service or registered or certified mail.

Meeting to Show Cause - Before proceeding to enforcement action, the municipality may want to hold a "show cause" meeting in which the municipality presents the facts concerning the noncompliance and requests the industry to "show cause" as to why the municipality should not proceed with one or more formal enforcement actions.

Formal Actions

Compliance Programs - In accordance with the by-law, the municipality may issue a compliance program to an industrial discharger. The compliance program which is a plan for achieving compliance contains specific activities with scheduled dates for implementation. If the industry complies with and successfully completes the compliance program, no further enforcement action is required.

Civil Action - The municipality may wish to take civil action against an industry in noncompliance. A civil action may result in a fine up to the $2,000, the current maximum allowable amount for violation of a municipal by-law.

Contempt of Court - When there is an order prohibiting or restraining acts which contravene the sewer use by-law, or requiring a person to do an act, an application can be brought for an order citing the persons who were parties or non-parties to the original action in contempt and committing such persons who knowingly act in contravention of the judgement or order to jail. Fines and other orders may also be given.

Order of Prohibition - In the situation of repeated offences of the sewer use by-law by the same offender, the municipality may wish to pursue a further remedy of prohibiting the continuation or repetition of the offence through an order of prohibition which is provided for in Section 326 of the Municipal Act.

All violations of the sewer use by-law are not equal in severity. Therefore, it is essential that the enforcement steps which the municipality chooses to take are appropriate to the nature of the violation. For example, for a one time violation of a discharge limitation which does not result in any adverse effects, only a warning letter may be required; but for repeated violations of the discharge limits resulting in environmental damage, an order of prohibition may be required.

To facilitate the enforcement mechanisms, the municipality should develop guidelines which contain the appropriate enforcement steps to be taken in response to a specific type of violation and should inform each industrial discharger of these enforcement actions. These enforcement guidelines should be used consistently and equitably for every violation of the sewer use by-law.

A typical example of an enforcement strategy in which the severity of the enforcement action increases with the severity of the violation is presented in Table III-3.

Table III-3
Enforcement Strategy

SAMPLE VIOLATION	ENFORCEMENT RESPONSE
	Informal
Failure to complete and submit Waste Survey Report	Informal Notice (if no response, proceed to more severe enforcement such as warning letter)
Minor exceedance of discharge limits - one time violation	Informal Meeting
Minor exceedances of discharge limits on an infrequent basis	Warning Letter
Failure to notify municipality of minor spill into sewage works - one time violation.	Show Cause Meeting
Major exceedance of discharge limits - one time violation	Show Cause Meeting
	Formal
Exceedance of discharge limits on a regular basis	Civil Action
Failure to notify municipality of major spill into sewage works	Civil Action
Exceeding discharge limits with known damage to sewage treatment plant or failure to comply with compliance program	Civil Action
Exceeding discharge limits with known damage to sewage treatment plant on a regular basis	Order of Prohibition
Failure to comply with order of prohibition to stop discharging sewage exceeding by-law limits and causing sewage treatment plant damage.	Contempt of Court

10.2 Offences

For the purposes of this by-law, each day constitutes a separate offence. For example, if samples in noncompliance were taken each day for five consecutive days, this would constitute five separate offences.

10.3 Fines

The amount of the fine should be determined by the municipality; however, the actual fine will be decided in court.

Fines for violation of municipal sewer use by-laws may range up to $2000, the maximum possible fine under the Municipal Act. On December 7, 1987, an amendment to the Municipal Act which raises penalties for sewer use by-law offences was given first reading. This amendment establishes the following maximum fines for sewer use by-law offences:

	Individual	Corporation
First Offence	$ 5,000	$25,000
Subsequent Offences	$10,000	$50,000

Provisions which reflect these changes to the Municipal Act are included in the model by-law.

11.0 Information Available to the Public

The public should have access to the following information:

(i) which dischargers are in noncompliance and the enforcement actions taken;
(ii) which dischargers have compliance programs and status of individual compliance programs; and
(iii) which dischargers have agreements and discharge limits and fees in individual agreements.

V. LIST OF APPENDICES

Appendix 1 - Guidelines for Preparation of a Best Management Practices (BMP) Plan.

Appendix 2 - Legislation. This appendix identifies the legislation related to a sewer use program and indicates how to obtain this legislation.

Appendix 3 - Publications. This appendix contains a list of publications, documents, manuals, etc., which are referenced or used in the preparation of the Guidance Manual and information on how to obtain them.

Appendix 4 - Ministry of the Environment Regional Offices.

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APPENDIX 1
GUIDELINES FOR PREPARATION OF A BEST MANAGEMENT PRACTICES (BMP) PLAN

Introduction

A Best Management Practices (BMP) Plan is a management tool for protecting the environment beyond the quantitative controls such as effluent limits. A BMP plan is best applied in conjunction with quantitative controls and is designed to prevent losses of contaminants to the environment such as by spills or where operating procedures play a significant role in determining contamination levels.

A BMP plan is written on a site by site basis and includes "good housekeeping" measures. The essential components of a BMP plan are written in a document by the potential polluter (e.g. the industrial discharger) and approved by the regulatory authority. It is the responsibility of the industrial discharger to implement the BMP plan.

Essential components of a BMP plan include the following:

1. Identification

The name and location of the facility should be clearly stated along with a statement by the plant manager that he/she has reviewed the plan.

2. BMP Committee

The BMP plan must describe efforts that will be undertaken to establish a BMP committee. A BMP committee is a group of individuals assigned to develop the BMP plan in much the same way that a fire prevention or safety committee develops fire prevention or safety practices. The BMP committee must develop and implement the plan, but the quality of the plan remains the responsibility of management.

The activities and responsibilities of the BMP committee must include:

- identification of toxic and hazardous materials addressed in the plan,
- identification of potential spill sources,
- establishment of incident reporting procedures,
- development of BMP inspections and records procedures,
- review of environmental incidents to determine and implement necessary changes to the BMP plan,
- coordination of incident notification, response, and clean-up procedures,
- establishment of BMP training programs for plant personnel, and
- assistance in interdepartmental coordination needed to carry out the BMP plan.

3. Risk Identification and Assessment

"The plant areas subject to BMP requirements must be identified by the BMP committee, plant engineering group, environmental engineer or others in the plant."* The potential risks of discharges of toxic pollutants and hazardous substances to storm sewers from each area must be identified. Existing physical means (e.g. dikes, diversion ditches) of controlling such discharges must be identified.

An inventory of hazardous substances and toxic chemicals must be developed as part of the risk identification and assessment. The details of this inventory should be proportional to the quantity of toxic pollutants and hazardous substances on site and their potential for reaching the storm sewer(s).

4. Reporting of BMP Incidents

Spills, leaks, runoff and other improper discharges must be reported to minimize recurrence, expedite mitigation and cleanup activities, and comply with legal requirements. For this, a BMP incident reporting system must be developed and included in the BMP plan. Reporting procedures defined by the BMP committee must include:

- notification of appropriate plant personnel to begin immediate action,
- formal written reporting of BMP incidents to management for evaluation and for possible initiation of BMP changes, and
- notification, as required by law, of government and environmental agencies.

5. Materials Compatibility

Incompatible materials can cause equipment failure resulting from corrosion, fire or explosion. Equipment failure can be prevented by ensuring that the hazardous substances or toxic pollutants are compatible with the container contents and the surrounding environment.

Materials compatibility includes consideration of:

- compatibility of the container being stored with the container materials,
- compatibility of different chemicals upon mixing in a container, and
- compatibility of the container with its environment.

The BMP plan must list procedures for ensuring that these three compatibility concerns are considered in the design and operation of the equipment used for the storage or transfer of toxic and hazardous materials.

6. Good Housekeeping

"Good housekeeping is the maintenance of a clean, orderly work environment and contributes to the overall facility pollution control effort."* Reducing the possibility of chemicals and equipment mishandling can be accomplished by periodic training of employees in housekeeping techniques, particularily for those plant areas where the potential exists for BMP incidents.

Examples of good housekeeping include:

- neat and orderly storage of bags, drums and piles of chemicals,
- prompt cleanup of spilled liquids to prevent significant runoff to surface waters,
- sweeping, vacuuming or other cleanup of accumulations of dry chemicals as necessary to prevent them from reaching receiving waters, and
- provision for storage of containers or drums to keep them from protruding into walkways or pathways.

7. Preventative Maintenance

To prevent environmental incidents, an effective preventative maintenance (PM) program is important. A PM program involves inspection and testing of plant equipment and systems to uncover conditions which could cause breakdowns and failures with resultant significant discharges of chemicals to storm sewers. The PM program should prevent breakdowns and failures by adjustment, repair or replacement of the necessary items.

A good PM program should include:

- identification of equipment or systems to which the PM program should apply,
- periodic inspections or tests of identified equipment and systems,
- appropriate adjustment, repair, or replacement of the necessary items,

- maintenance of complete PM records on the applicable equipment and systems, and
- a suitable records system for scheduling tests and inspections, recording test results and facilitating corrective action.

A plant may already have a PM program in place. However, existing programs must be reviewed and enhanced to meet the objectives of BMP for maximum environmental protection.

8. Inspections and Records

"An inspection and records system detects and documents actual or potential BMP incidents. The BMP plan must include written inspection procedures and optimum intervals between inspections. Records to show the completion date and results of each inspection must be signed by the appropriate supervisor and maintained for a period of three years. A tracking or follow-up procedure must be instituted to assure that adequate response and corrective action have been taken. The record-keeping portion of this system can be combined with the existing spill reporting system in the plant.

The inspection and records system must include those equipment and plant areas having the potential for significant discharges. To determine the inspection frequency and inspection procedures, experienced personnel should evaluate the causes of previous incidents, the likelihood of future incidents, and assess the probable risks for incident occurrence or recurrence. Consideration should be given to the nature of chemicals handled, materials of construction, and site-specific factors including age, inspection techniques and cost effectiveness of BMPs employed".*

9. Security

The purpose of a security system is to prevent accidental or intentional entry to a plant which might result in theft, vandalism, sabotage or other illegal or improper use of plant facilities that could possibly cause a BMP incident. To prevent unauthorized entry, most plants have security systems.

The BMP plan must describe the existing security system and improvements which are necessary to ensure that toxic chemicals are not discharged to storm sewers in significant quantities as a result of unauthorized entry. Separate filing, from the BMP plan, of the security system documentation may be required to prevent unauthorized individuals from gaining access to sensitive or confidential information.

10. Employee Training

Employee training programs must be developed to ensure that personnel at all levels of responsibility have a complete understanding of the BMP plans. Such programs should address:

- the processes and materials on the plant site,
- the practices for preventing discharges, and
- the procedures for responding properly and rapidly to toxic and hazardous materials incidents.

"Meetings should be conducted at least annually to assure adequate understanding of the objectives of the BMP plan and the individual responsibilities of each employee. Typically, these must be part of routine employee meetings for safety or fire protection. Such meetings should highlight previous spill events or failures, malfunctioning equipment, and new or modified BMPs.

Training sessions must review the BMP plan and associated procedures. Just as fire drills are used to improve an employee's reaction to a fire emergency, spill or environmental incident, drills may serve to improve the employee's reactions to BMP-related incidents. Plants are encouraged to conduct spills drills on a quarterly or semi-annual basis. Spill or incident drills serve to evaluate the employee's knowledge of BMP-related procedures and are a fundamental part of employee training."*

11. Other

It should be recognized that BMPs are written to suit the circumstances. A large facility having a high potential for BMP incidents may be required to include all of the above components in great detail in the BMP plan. On the other hand, a small operation (e.g. one drum of chemicals being stored on a plant site) may only need a simple BMP plan dealing with only one or two hazards.

* These quotations as well as most of the major points for the components of a BMP are extracted from:

United States Environmental Protection Agency
Memorandum from James Gallup to Regional Permit Branch Chiefs, dated August 29, 1986.

Additional information can be found in the following reports:

NPDES Best Management Practices Guidance Document, U.S. EPA 600/9-79-045, June 1981.

Guidance Manual for the Development of an Accidental Spill Prevention Program, Region X, U.S. EPA, February 1986.

APPENDIX 2
RELEVANT LEGISLATION

Relevant Legislation

Copies of legislation may be obtained from the Ministry of Government Services, 880 Bay Street, Toronto, Ontario M5S 1Z8. The Ontario Government Bookstore (1st floor - telephone 416-965-2054) handles direct sales. The Publications Centre (5th floor - telephone 416-965-6015) handles mail orders.

The Ontario Water Resources Act

This Act provides for the control and protection of quality and quantity of surface and ground waters. It is administered by the Ministry of the Environment.

The Environmental Protection Act

This Act prohibits the contamination of the natural environment and provides for its preservation and improvement. It is administered by the Ministry of the Environment.

The Municipal Act

This Act contains administrative procedures for municipal government and gives the municipality the power to pass by-laws.

1975 MOE/MEA Model Sewer Use By-law

This was a by-law to control industrial waste discharges to municipal sewers. It was developed by a joint committee of the Ministry of the Environment and the Municipal Engineers Association.

Transportation of Dangerous Goods Regulations

These regulations may be obtained from the Waste Management Branch, Ministry of the Environment, 40 St. Clair Avenue West, 5th Floor, Toronto, Ontario - 416-323-5200.

Ontario Regulation 309

This regulation identifies different types of hazardous wastes and establishes generator registration and reporting requirements.

Ontario Regulations 148/86

Regulation 146/86 establishes requirements for mobile PCB destruction facilities.

Pesticides Act

The Pesticide Act regulates the storage, selling, display and transportation of pesticides.

APPENDIX 3
PUBLICATIONS

The following materials, which are referenced or were used in the preparation of this Guidance Manual, are available for review at the Environmental Library, 135 St. Clair Avenue West, 1st Floor, Toronto, Ontario (telephone: 416-323-4350):

1. Water Management Goals, Policies, Objectives, and Implementation Procedures of MOE, Ontario Ministry of the Environment, May 1984 (Blue Book).

2. Sources of Metals and Metal Levels in Municipal Wastewaters, Research Report No. 80; Environment Canada, Ontario Ministry of the Environment, Canada-Ontario Agreement on Great Lakes Water Quality, 1978.

3. U.S. EPA Guide for Infectious Waste Management EPA/530-SW-86-014, U.S. Environmental Protection Agency, May 1986.

4. User Charge Guidelines Manual for Publicly-Owned Treatment Works, U.S. Environmental Protection Agency, June 1984.

5. Sewer Charges for Wastewater Collection and Treatment - A Summary, Water Pollution Control Federation, 1982.

6. A Guide to the Collection and Submission of Samples for Laboratory Analysis, Ontario Ministry of the Environment, July 1977.

7. Quality Assurance Policy and Guidelines, Laboratory Services Branch, Ontario Ministry of the Environment, April 1986.

8. Principles of Control Charting, Laboratory Services Branch, Ontario Ministry of the Environment, February 1984.

9. Legal Samples: Laboratory Handling Protocol for the Laboratory Services Branch, Ontario Ministry of the Environment.

9. EPA Guidance Manual for POTW Pretreatment Program Development, October 1983.

10. Ontario's Guidelines for Sewage Sludge Utilization in Agricultural Lands, Ontario Ministry of the Environment, January 1986.

11. Tidball, J.R., Ontario Legislation and Industrial Waste By-Laws, Ontario Ministry of Environment, May 1984.

12. Poch, H., On the Attack: Sanctions Against Corporations, Officers and Directors, Corporate Environmental Responsibility and Liability, Canadian Bar Association, May 1987.

13. Polychlorinated Biphenyls (PCBs) in Municipal Wastewaters: An Assessment of the Problem in the Canadian Lower Great Lakes, Environmental Protection Service, Environment Canada, Project 73-3-8.

14. Memorandum from James Gallup to Regional Permit Branch Chiefs dated August 26, 1986, U.S. Environmental Protection Agency.

15. NPDES Best Management Practices Guidance Document, EPA 600/9-79-045, U.S. Environmental Protection Agency, June 1981.

16. Guidance Manual for the Development of an Accidental Spill Prevention Program, Region X, U.S. Environmental Protection Agency, February 1986.

17. Objectives for the Control of Industrial Waste Discharges in Ontario, Ontario Ministry of the Environment.

18. Guidelines for the Handling and Disposal of Biomedical Wastes from Health Care Facilities and Laboratories, Ontario Ministry of the Environment, 1986.

19. CSA Draft Standard Z317,10, Handling of Waste Materials within Health Care Facilities, Canadian Standards Association, 1987.

20. Guide to Implementing Household Hazardous Waste Collection Programs, Ontario Ministry of the Environment, 1986.

21. Guideline for the Handling and Disposal of Selected Liquid Wastes from Retail Motor Vehicle Servicing Facilities, Ontario Ministry of the Environment, 1986.

22. Registration Guidance Manual for Generators of Liquid Industrial and Hazardous Waste, Ontario Ministry of the Environment, 1985.

23. Sewer-Use By-Law Implementation and Enforcement-Current and Recommended Practices, IP-55, Environment Canada, 1986.

24. Standard Industrial Classification Manual, Executive Office of the President, Office of Management and Budget, 1972.

25. Standard Industrial Classification Manual, Minister of Supply and Services Canada, 1980.

26. Scott's Directories, Ontario Manufacturers, 15th Edition, 1985-1986.

APPENDIX 4
MINISTRY OF THE ENVIRONMENT REGIONAL OFFICES

SOUTHWESTERN REGION

London (519 661-2200)
985 Adelaide St. S. N6E 1V3

Windsor (519 254-2546)
250 Windsor Ave. N9A 6V9

Sarnia (519 336-4030)
265 N. Front St. #109 N7T 7X1

Owen Sound (519 371-2901)
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Welland (416 384-9896)
637-641 Niagara St. N. L3C 1L9

CENTRAL REGION

Toronto (416 424-3000)
7 Overlea Blvd., 4th Floor
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Halton-Peel (416 844-5747)
1235 Trafalgar Rd., #401

Barrie (705 726-1730)
12 Fairview Rd. L4N 4P3

Muskoka Haliburton (705 687-3408)
Gravenhurst Plaza
General Delivery P0C 1G0

Peterborough (705 743-2972)
139 George St. N. K9J 3G6

SOUTHEASTERN REGION

Kingston (613 549-4000)
133 Dalton Avenue
P.O. Box 820 K7L 4X6

Cornwall (613 933-7402)
205 Amelia St. K6H 3P3

Belleville (613 962-9208)
15 Victoria Ave., K8N 1Z5

Ottawa (613 521-3450)
2378 Holly Lane K1V 7P1

Pembroke (613 732-3643)
1000 McKay St., K8B 1A3

NORTHEASTERN REGION

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North Bay (705 476-1001)
1500 Fisher St.
Northgate Shopping Centre
P1B 2H3

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445 Albert St. E. P6A 2J9

Parry Sound (705) 746-2139)
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NORTHWESTERN REGION

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435 James St. S. P7C 5G6

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808 Robertson St. P9N 1X9

COMPENDIUM OF PUBLIC COMMENTS ON MODEL SEWER USE BY-LAW

AND

MINISTRY RESPONSES

COMPENDIUM OF COMMENTS

ON MODEL SEWER USE BY-LAW DATED APRIL 22, 1987

AND MINISTRY RESPONSES*

*This compendium of comments and responses results from 59 letters of comments received from the following groups:

Code		
M	Municipalities	18
M	Regional Municipalities	7
I	Industries, Industrial Organizations	21
ENV	Environmental Groups	1
E	MOE Regions, Branch Directors	12

The letters following each comment in the compendium indicate from which group the comment was received according to the above code.

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EXPLANATORY NOTE

The Sections in the Compendium of Comments on Model Sewer Use By-law and Ministry Responses refer to the Sections in the Model By-law dated April 22, 1987. In the final version of the Model By-law which is dated January 31, 1988, several sections have been changed and rearranged to reflect the comments and concerns addressed during the review process. The section changes are shown in the following table:

COMPARISON OF SECTIONS

Model Sewer Use By-Law Dated April 22, 1987	Model Sewer Use By-law Dated January 31, 1988
Section 1 - Definitions	Same
Section 2 - Discharges to Sanitary Sewers; Discharges to Combined Sewers Subsections 2(1) to 2(4)	Same, but now Subsections 2(1) to 2(9)
Section 3 - Discharges to Storm Sewers Subsections 3(1) and 3(2)	Same, but now Subsections 3(1) to 3(4)
Section 4 - Reports Subsections 4(1) to 4(3)	Same, but now Subsections 4(1) to 4(6)
Section 5 - Agreements Subsections 5(1) and 5(2)	Same, but now Subsections 5(1) to 5(5)
Section 6 - Program Approvals Subsections 6(1) to 6(6)	Name of Section changed to Compliance Programs and now Subsections 6(1) to 6(10)

EXPLANATORY NOTE (Continued)

Model Sewer Use By-Law Dated April 22, 1987	Model Sewer Use By-law Dated January 31, 1988
Section 7 - General Subsections 7(1) to 7(11) split into	New Section 7 - Sampling and Analysis Subsection 7(1) and New Section 9 - General Subsections 9(1) to 9(9)
	New Section 8 - Spills Subsections 8(1) to 8(6)
Section 8 - Offences Subsections 8(1) and 8(2)	Same, but now Subsections 10(1) to 10(5)
Appendices	New Schedule A - Best Management Practices (BMP) Plan
	New Schedule B - Industrial Sectors
Section 4 - Waste Survey Report	Schedule B1
Section 5 - Sample Agreement Form	Schedule C
Section 6 - Sample Program Approval Form	Schedule D - (Name changed to Compliance Program Form)
	New Schedule E - Compliance Program Progress Report

SECTION	COMMENTS	MINISTRY RESPONSES
1-DEFINITIONS	Modify or add the following definitions: • building sewer • fuels • owner • pathological waste • person • public sewer • sewage • solvent extractable • uncontaminated water. - M, E, I	The Ministry has modified or added the following definitions: • authorized representative of owner or operator • biochemical oxygen demand • blowdown • composite sample • cyanide • de minimis dose • de minimis waste • fuels • grab sample • hauled sewage • ignitable waste • industrial • industrial process area • Kjeldahl nitrogen • noncontact cooling water • once-through cooling water • owner or operator • PCB • pathological waste • person • phenolic compounds • phosphorus • severely toxic material • solvent extractable matter of animal or vegetable origin • solvent extractable matter of mineral or synthetic origin • suspended solids • waste disposal site leachate • waste radioactive materials

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 1 - DEFINITIONS (continued)	"Fuels" definition should be expanded. - M	The definition for fuels has been expanded to include (i) any ignitable liquid intended for use as a fuel with a flash point less than 61° Celsius as determined by a method specified in Regulation 309 and (ii) gasoline, naptha, diesel fuel, or fuel oil.
	Biochemical oxygen demand should be changed. - M	The definition for biochemical oxygen demand has been changed to "biochemical oxygen demand" means carbonaceous oxygen demand (biochemical) as determined by Method 507 in Standard Methods when an inhibiting chemical has been added to prevent ammonia oxidation.
	Uncontaminated water should be defined as water which in all aspects meets receiving water quality. - M, E	The Ministry believes the definition for uncontaminated water is appropriate for the by-law.
	The definition for uncontaminated water should be clarified. - I	The Ministry does not feel it is necessary to remove these words from the definition for storm sewer.
	The words "uncontaminated water" should be removed from the definition for storm sewers since storm sewers may receive stormwater which contains suspended solids. - I	Procedures "approved by a designated analyst of MOE" refer to a catalogue of MOE analytical methods which will be published and available to interested persons in the near future. The published document will include a detailed discussion of the analytical procedures and quality assurance/ quality control requirements.
	Definitions of Standard Methods includes "a procedure approved by a designated analyst of MOE". This is too subjective especially if heavy fines are involved. - M	

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 2 - DISCHARGES TO SANITARY SEWERS; DISCHARGES TO COMBINED SEWERS	Modify to prohibit discharge of material which may become harmful to municipal staff. - M	A phrase has been added to Clause 2(1)(a) to prohibit the discharge of matter ... "which may be or may become a health or safety hazard to a sewage works employee."
Clauses 2(1)(a) and 2(1)(b) - General Prohibitions	pH upper limit should be 9.5. - M	pH upper limit has been changed to 9.5.
	Limit of 10 mg/litre for phosphorus too low. - M Limit for phosphorus should be 5 mg/litre. - M Limit on phosphorus is a concern since phosphate cleaners are still in use and consequently phosphates are a component of liquid wastes emanating from plants. - I	A different approach will be utilized for the control of discharge of phosphorus. A limit of 10 mg/litre phosphorus will remain in the by-law, but an agreement as contained in Section 5 of the by-law can be made between a municipality and an industrial discharger for the discharge of sewage containing phosphorus in excess of 10 mg/litre.
	Limit of 1 mg/litre phenols too low. - I	A different approach will be utilized for the control of phenols. A limit of 1 mg/litre will remain in the by-law, but an agreement as contained in Section 5 of the by-law can be made for the discharge of sewage containing phenols in excess of 1 mg/litre.

SECTION	COMMENTS	MINISTRY RESPONSES
Clauses 2(1)(a) and 2(1)(b) - General Prohibitions (continued)	Prohibition of the discharge of sewage containing amines or ammonia may be unnecessary and impossible to achieve. - E Ammonia is used extensively as corrosion inhibitor in steam generation systems, and as a common additive in domestic and industrial cleaners. Is it the intention of the Ministry to eliminate the use of these materials? - I The wording of Section 2(1)(b)(i) implies that the mere discharge of amines/ammonia is an offence. Recommend that odour must be shown to be resulting from ammoniacal compound before action is initiated. - I Section 2(3) states that Section 2(1)(b)(i) does not apply to prevent the discharge of human waste. Human wastes should include blood. - I	The intent of this clause is to prohibit the discharge of any material which may cause an offensive odour at the sewage treatment plant. An offensive odour which results from sewage containing one of the parameters listed (amines, hydrogen sulfide, carbon disulfide) must be shown before the initiation of prosecution of a discharger for a violation of this clause. If blood is found in human wastes (i.e. waste coming from the human body), then it would be included in this exemption.

SECTION	COMMENTS	MINISTRY RESPONSES
Clauses 2(1)(a) and 2(1)(b) - General Prohibitions (continued)	Words "or contaminated water" should be deleted from "sewage or uncontaminated water at a temperature greater than 65°C". - E	This wording is needed to prohibit the discharge of uncontaminated water at temperature greater than 65°C to combined sewers.
	Why is sewage or uncontaminated water at a temperature greater than 65° prohibited? - E Why is sewage which consists of two or more separate layers prohibited? - E Why are pH limits 6.0 and 10.0? - E	These prohibitions are based on the objectives of the sewer use by-law contained in Clause 2(1)(a) to prohibit the discharge of matter which may be harmful to the sewage works or which may interfere with the operation of the sewage works.
	Does prohibition of sewage consisting of two or more separate layers apply to minor oil sheen? - I	This question cannot be answered without actually seeing the oil sheen. If the oil sheen caused the discharge to consist of two or more separate layers, it would be a contravention of this clause.
	Specific limits for biochemical oxygen demand, suspended solids, solvent extractable matter of animal or vegetable origin and solvent extractable matter of mineral or synthetic origin should be added. - M, E, I.	Specific limits have been placed in by-law: • biochemical oxygen demand - 300 mg/litre • suspended solids - 350 mg/litre • solvent extractable matter of animal or vegetable origin - 150 mg/litre • solvent extractable matter of mineral or synthetic origin - 15 mg/litre

SECTION	COMMENTS	MINISTRY RESPONSES
Clauses 2(1)(a) and 2(1)(b) - General Prohibitions (continued)	Current limit of 15 mg/L for solvent extractable material of mineral or synthetic origin is difficult for smaller industry to obtain. - M	The intent of this discharge limitation is to control the discharge of a general class of organic compounds. If smaller industries are currently unable to comply with this discharge limitations, it is possible for them to develop a plan for compliance and obtain a program approval for implementation of this plan.
	Industries are concerned with the discharge of dyes or colouring material into sewers. - M Coloured material can't be discharged to sewers if it discolours the STP effluent. The location of industry, size and type of treatment plant, and sensitivity of receiving stream are key factors and could give one industry a distinct competition over another. - M It should be clarified in the by-law where the samples will be taken for assessment. - I	The intent of clause 2(1)(b)(x) is to prohibit the discharge of dyes or colouring material which pass through a sewage works and discolour the effluent, resulting in a contravention of the Ontario Water Resources Act or Environmental Protection Act. This section allows the discharge of dyes or colouring material if they don't pass through the sewage works or cause a violation of Clause 2(1)(a) of the by-law. The sampling point to assess compliance with the by-law is at the end-of-pipe (i.e. after all waste streams from the facility have been combined). Sampling methodology is discussed in the Guidance Manual for the Sewer Use By-law.

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Limitations	Rationale for lower limits for copper, nickel, zinc. Copper, nickel, and zinc limits too low for industries with pretreatment facilities and not attainable on a regular basis. - M,I	The lower limits for copper, nickel, and zinc in the by-law are based on protection of the quality of the receiving stream, protection of the sewage works operation and the guidelines for sewage sludge utilization on agricultural lands. This analysis will be described in the Development Document for the Discharge Limits in the Model Sewer Use By-Law currently in preparation.
	Cadmium limit has been reduced. Is this justified? - I	The lower limit for cadmium is based on protection of the quality of the receiving stream, protection of the sewage works operation, and the guidelines for sewage sludge utilization on agricultural lands. See above response.
	The limits for chromium, cobalt, lead, molybdenum and selenium should be 2 mg/L. - M The restriction on iron of 50 mg/L may be too low since iron can be beneficial as flocculent for removal of Phosphorus at STP. - I	The basis for the limits of chromium, cobalt, lead, molybdenum, selenium and iron will be described in the Development Document for the Discharge Limits in the Model Sewer Use By-Law currently in preparation.
	There are more limitations for specific parameters in the 1987 model by-law. Is this justified? - I	The Ministry has identified and included limitations for specific parameters which are commonly found in industrial discharges and which may cause contravention of the requirements in Clause 2(1)(a).

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Limitations (continued)	Existing industries may not be able to meet the stringent criteria for some of the metals and other parameters. This is a serious concern from an economic and enforcement point of view. It is possible that the model by-law will discourage new industrial development or expansion. - M	The Ministry agrees that the economic impact is an important issue which needs to be reviewed and assessed in the development of a sewer use control strategy for Ontario (see response on page 52).
	No limits for gold, rhodium, or platinum (discharges from precious metal finishers) in the by-law. - M	The sewer use by-law contains limitations for specific parameters most commonly found in industrial discharges. In specific cases where limits for other parameters may be needed, it is the intent that the municipality in conjunction with MOE staff develop discharge limits for these parameters.
	Remove words "expressed as" e.g. Phosphorus "expressed as" P. - M	These words are commonly used to avoid any ambiguity in how a specific parameter may be denoted in laboratory analytical data.
	Pb should be written Pb2. If it is not written correctly, it could be loophole in a legal action. - M	For the purposes of this by-law, lead is correctly expressed as Pb.

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Limitations (continued)	For cyanide, the limits should be in terms of free cyanide and not as total cyanide which would include ferrocyanides and cyanates. An approved method should be specified, since many platers use the Hach Test Kit, which analyses free cyanide. The distillation method is too cumbersome for everyday use. - I	The analytical methods stated in the by-law for total cyanide are methods 412B plus one of 412C or 412D in Standard Methods or the approved method for cyanide in the list of MOE analytical methods. The discharge limitation in the by-law is for total cyanide not free cyanide; therefore, the Hach Test Kit is not appropriate for this measurement.
	Even the low metal limitations contained in by-law may cause sludge to fail Provincial Guidelines. - E	The Ministry has surveyed metal concentrations in sludges in various plants in Ontario to determine if the sludge currently meets the sludge guidelines assuming that most municipalities have a sewer use by-law with metal limitations. The results from this survey are discussed in the Development Document for the Discharge Limits in the Model Sewer Use By-law currently in preparation.
	In order for the public to comment on the actual discharge limits, the supporting documentation showing how the limits were derived needs to be made available. - ENV	The rationale for the specific discharge limits contained in the by-law will be discussed in the Development Document for the Discharge Limits in the Model Sewer Use By-law.
	Since most chemicals and metals can pass untreated into STP receiving waters, the by-law limits should be the same as the provincial water quality objectives. For those chemicals not yet included in the provincial objectives, limits need to be established using the same health-based rationale, i.e., to protect most sensitive aquatic organisms from damage. - ENV	

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Limitations (continued)	Maximum effluent limits should be replaced with maximum daily and monthly average concentrations. - I	The maximum effluent limits provide a simple and effective means of by-law enforcement.
	Limits for metals are stringent. Interpretation of the limit should allow for averaging of levels of contaminants discharged into a sewer over a period of a workday. - I	
	Consideration should be given to a limited total concentration for Cr, Pb, Hg, Ni, Ca, and Zn. - M	The Ministry believes that the proposed system of maximum effluent concentration limits for each parameter is the most appropriate mechanism for monitoring and enforcement of the by-law.

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Limitations (continued)	Molybdenum (sodium molybdate) is being used as an effective corrosion inhibitor in both open circulating and closed water systems throughout Ontario and has successfully replaced potential pollutants such as chromate, hydrazine, and nitrite type corrosion inhibitors. One of the main reasons for choosing molybdenum was that from all the information gathered from the U.S., Canada, and Ontario regulatory agencies, molybdenum exhibited environmental compatibility within the framework of its commercial utilization as a corrosion inhibitor. In closed water systems, the molybdenum concentration may vary from 50 to 100 ppm; however, these systems are seldom drained. We are concerned about the by-law limit of 5 ppm for molybdenum. - I	The rationale for the discharge limit for molybdenum will be discussed in the Development Document for the Discharge Limits in the Model Sewer Use By-law. However, it should be noted that molybdenum is currently included on the Ontario Effluent Monitoring Priority Pollutant List, is listed as a controlled substance in irrigation water in the Water Management Handbook (Blue Book), May 1984, and is controlled under the MOE sludge guidelines.

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Prohibitions Hazardous Materials	The discharge of certain wastes "in any amount" (i.e. hazardous wastes) may be unreasonable, expensive, and impracticable to enforce. - M	The objectives of the sewer use by-law are to prohibit the discharge of any material which: 1. may be or may become a health or safety hazard to a sewage works employee; 2. may be or may become harmful to a sewage works; 3. may cause the sewage works effluent to contravene any requirement by or under the Ontario Water Resources Act or the Environmental Protection Act; 4. may cause the sludge to fail to meet criteria contained in Ontario's Guidelines for Sewage Sludge Utilization on Agricultural Lands; 5. may interfere with the operation of a sewage works; 6. may impair or interfere with any sewage treatment process; or 7. may be or may become a hazard to any person, animal, property or vegetation. The discharge of the hazardous wastes specified in the by-law may cause one or more of the above situations.
	The concept of zero discharge for sewage while admirable is not pragmatic and the by-law should provide for a small margin of permitted sewage before a violation occurs. - I	The enforcement of the section of the by-law, regarding zero discharge for specific hazardous materials/wastes will be discussed in detail in the Guidance Manual for the Sewer Use By-law.

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Prohibitions Hazardous Materials (continued)	Recommend an exemption for research laboratories. - I	The by-law does not contain exemptions for research laboratories. However, the mechanisms for dealing with specific industrial sectors such as laboratories will be addressed in the development of the sewer use control strategy.
	There is an apparent inconsistency between municipalities prohibiting Regulation 309 substances and MOE permitting discharges of Regulation 309 substances. Is a change to Regulation 309 needed? - E Proper wording for this section should be worked out with Waste Management Branch. - E	The by-law has been extensively reviewed by the Waste Management Branch and revised appropriately to insure consistency with Regulation 309 whenever applicable. Reg. 309, which deals with waste generator requirements, contains small quantity exemptions for registration, not for discharges to sewage works.
	Modify this section to say "sewage containing any of the following in any amount: • Fuels • Pesticides • Waste Radioactive Materials". Add a section to say "The following hazardous wastes as defined under Ontario Regulation 309 in any amount: • Acute Hazardous Waste Chemicals • Hazardous Industrial Wastes • Hazardous Waste Chemicals • Ignitable Wastes • PCB Wastes • Reactive Wastes". - E	This section has been appropriately modified.

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Prohibitions Hazardous Materials (continued)	The prohibition of the discharge of radioactive materials should be changed to exempt Atomic Energy Control Board (AECB) licensees. - E The operating license of our industrial facility lacks specificity regarding radioactive wastes, but these wastes and their acceptable emissions are identified in the application to the AECB and therefore form part of the licensing requirements. To reflect this, we recommend that the last three lines of section 2(4) be deleted and add "accordance with levels acceptable to the Atomic Energy Control Board". - I What about radioactive wastes which are too low in concentration for AECB to be concerned with? - E	A section has been added which allows the discharge of waste radioactive materials where they are discharged in accordance with an AECB license. The wording has been changed to reflect this comment. The discharge of radioactive wastes which are not covered by an AECB licence is prohibited with one exemption. A new section has been added that exempts the discharge of de minimis waste. (The definition for this type of radioactive waste is found in Section 1 of the by-law).

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Prohibitions Hazardous Materials (continued)	No basis for prohibition of discharge of PCBs. - I The limit of 5 parts per billion (ppb) PCBs is too stringent and may not be appropriate to reflect an industry norm. The level of 5 ppb should be considered from 2 other perspectives: 1. The 'minimum quantity' concept: In other words these are 'de minimis' quantities which are of no concern for environmental consequence (be it discharge or sewage plant operation). 2. Comparison of the 5 ppb discharge to sewers with the Federal Regulation 2 limit of 5 ppm for road oiling: It is inconsistent that 5 ppm may be disposed of to roads where the degradation/ immobilization of PCBs is null, whereas 5 ppb is not permitted in sewers where there is definite evidence of the occurrence of PCB degradation. - I	The prohibition of the discharge of PCBs is necessary to meet the requirements in Clause 2(1)(a) of the by-law. However, a new section has been added which allows the discharge of sewage containing less than 5 micrograms per litre of PCBs under certain conditions. This exemption is directly in accordance with Ontario Regulation 148/86.

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Prohibitions - Hazardous Materials (continued)	The section "Sewage containing any of the following: PCB Wastes" should read "PCB Wastes greater than 50 ppm". - I The definition of pathological waste under Reg. 309 would include blood and feces. An explicit definition for pathological waste should be added to Section 1 which changes Part (iii) of the Reg. 309 definition to read one of the following: (iii) Solid non-anatomical waste infected with communicable disease; or (iii) non-anatomical waste infected with communicable disease, excluding feces and blood. - I The present definition of pathological wastes under Reg. 309 prevents any amount of any pathological waste from being discharged - e.g. urine, feces, blood. The definition under Reg. 309 is ambiguous as it relates to infectious wastes. - I	The Ministry does not feel it is necessary to specifically state this since the definition of PCB Wastes within Ontario Reg. 148/86 is "wastes containing PCBs at concentrations greater than 50 ppm". The Ministry has reviewed and modified the definition for pathological waste in the by-law. The application of the definition of pathological waste to sewer discharges is discussed in the Guidance Manual.

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Prohibitions Hazardous Materials (continued)	No one may discharge any "acute hazardous waste chemicals" or "severely toxic wastes". Does this mean one can discharge a "hazardous waste chemical" or "toxic waste"? - M	This terminology (taken from Reg. 309) is used so that the by-law is consistent with Reg. 309. The use of these terms does not mean that other hazardous chemicals or wastes without the words acute or severely preceding them may be discharged. Any chemical that doesn't fall within the Reg. 309 classes would still be subject to the other by-law prohibitions in Clauses 2(1)(a) and 2(1)(b).

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Prohibitions Hazardous Materials (continued)	Consistent with Regulation 309, a "commercial waste chemical ... does not include a waste stream contaminated with the material of the specified generic name". The intent of section 2(1)(b)(xii) is to prohibit the discharge of these materials in their "free" form and is not meant to prohibit the discharge of water contaminated with traces of these materials. This section of the by-law should be rewritten to clarify this issue. - I The ban on discharges of hazardous materials may result in inadvertent noncompliance in a large number of homes and plants. The concept of background levels and net contributions may need to be included to make this section practical and reasonable. - I Prohibition on discharging sewage containing hazardous wastes "in any amount" requires clarification re treatment practicality and enforcement perspectives. Consideration should be given to small quantity exemptions as in Regulation 309 for each classification. - E	The application of the Regulation 309 definitions and the enforcement of this section of the by-law are discussed in detail in the Guidance Manual for the Sewer Use By-law.

SECTION	COMMENTS	MINISTRY RESPONSES
Clause 2(1)(b) - Specific Prohibitions Hazardous Materials (continued)	Add a subsection which states that the prohibition of the discharge of hazardous wastes as defined under Reg. 309 does not apply to sewage containing incidental contamination of these wastes by virtue of a legitimate industrial process. - E It is difficult to follow how the Reg. 309 definitions will be applied in the by-law. It states in the "Guidance Manual for Generators of Liquid Industrial and Hazardous Wastes" that it is important to note that Schedules 2(A) and 2(B) are not lists of contaminants that, if present in a waste stream, make the stream hazardous. - I	
	Will the definition of Reactive Wastes be applied before the material is added to the plant sewer or after? - I	The definition of Reactive Wastes would apply at the designated sampling point in the sewer after which all waste streams from the facility have been combined. This is discussed in the Guidance Manual for the Sewer Use By-law.

SECTION	COMMENTS	MINISTRY RESPONSES
Subsections 2(2) to 2(4) - Other	Difficult to detect dilution and to enforce prohibition of dilution - M How will dilution be measured? Can one use flow volume data required in Section 2(2) to determine dilution? - E	Although concentration-based limits provide a simple and extremely effective enforcement mechanism, there is a potential problem in that industrial dischargers may attempt to use dilution to comply with the limits. To detect dilution, the municipality should inspect any pre-treatment facilities and/or plant piping to determine if there are any permanent connections for dilution water. Also, if the municipality suspects dilution, a review of historical water usage coupled with a close watch on current usage may assist in determining if dilution is occurring.
	Add sub-section which specifies a separate offense for any one parameter in excess of its limit - M	The Ministry considers the approach of a separate offense for each day or part of a day adequate at this time.

SECTION	COMMENTS	MINISTRY RESPONSES
Subsections 2(2) to 2(4) - Other (continued)	Discharge of filter backwash or settling sludge from water treatment plants may exceed limits for Aluminum in by-law. - E	The Ministry believes that the discharge of filter backwash or settling sludge from water treatment plants is adequately covered under a certificate of approval issued by the Ministry and need not be specifically addressed in the by-law.
	Discharge of landfill leachate is in some cases discharged into sanitary sewer. How will by-law handle this? - E	A section has been added which exempts waste disposal site leachate from the provisions of Clause 2(1)(b) under certain conditions.
	Section 2(1)(b) precludes the possibility of contaminated stormwater being discharged to a sanitary sewer. Stormwater which becomes contaminated (e.g. in process upset or spill) should be allowed to be discharged to STP, if levels of contamination meet by-law limits. - I	The Ministry believes that this is already covered in the by-law. If stormwater becomes contaminated, it would no longer be considered stormwater, but rather sewage, which could be discharged to STP if the discharge meets the by-law limits.
	To determine if something causes STP effluent to contravene OWRA, a definition of effluent quality for each plant will be needed. - M	This issue will be decided under the MISA program in the determination of effluent limitations for the municipal sector (municipal sewage treatment plants).

SECTION	COMMENTS	MINISTRY RESPONSES
Subsections 2(2) to 2(4) - Other (continued)	It is quite common to have roof drains connected to the sanitary sewer - M	The Ministry understands that this may be a problem in older communities. Each municipality will need to develop a comprehensive inspection program to assess the extent of the problem and a correction program if it is determined that these connections are causing a problem at the STP.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 3 - DISCHARGES TO STORM SEWERS Subsection 3(1) - General Prohibitions and Specific Limitations	Limits are unattainable. - M Limits are prohibitively low. - I	The limits for discharges to storm sewers have been revised as follows: 200 micrograms/litre Chromium 50 micrograms/litre Zinc Lead Nickel 10 micrograms/litre Copper 1 microgram/litre Cadmium Mercury 200 per 100 millilitres Fecal coliforms Two significant changes have been made in Section 3 of the model by-law: 1. These limits apply only to (1) stormwater runoff discharges from industrial process areas and to (2) stormwater discharges to which the matter prohibited by subsection 3(1) has been added for the purpose of disposal. 2. The limits are "trigger" levels for stormwater discharges from industrial process areas which means that if the discharge exceeds these limits, the industry will be required to prepare a Best Management Practices (BMP) Plan.

SECTION	COMMENTS	MINISTRY RESPONSES
Subsection 3(1) - General Prohibitions and Specific Limitations (continued)	Limits are at or below the detection range of instrumentation - M, I	The specified analytical method from Standard Methods and the associated method detection limit (MDL) for each parameter contained in Clause 3(1)(b) of the by-law are as follows:

Parameter	Analytical Method	MDL*	Revised By-Law Limit*
Cadmium	Furnace-AA	.0001	.001
Chromium	Furnace-AA	.002	.200
Copper	Furnace-AA	.001	.010
Lead	Furnace-AA	.001	.050
Nickel	Furnace-AA	.001	.050
Mercury	C. Vapour-AA	.0001	.001
Zinc	AA	.005	.050

* Units - milligrams/litre

SECTION	COMMENTS	MINISTRY RESPONSES
Subsection 3(1) - General Prohibitions and Specific Limitations (continued)	Board of Health only presents results greater than 200/100 mL fecal coliform. - M	The membrane filtration methodology in Standard Methods for determining fecal coliforms allows for the determination of numbers much less than 200/100 mL fecal coliforms.
	The following parameters are not addressed for storm sewers: • Solvent extractable matter of animal or vegetable origin. • Solvent extractable matter of mineral or synthetic origin. • Suspended solids. • Biochemical oxygen demand. • Liquid in 2 phases. • pH • Hazardous wastes. - E Few discharge limitations for storm sewer compared to limitations for sanitary and combined sewers. - E Hazardous wastes from Ontario Regulation 309 should be stated here instead of "waste paints and solvents". Specific identification of one type of hazardous waste may lead one to assume that other types may be discharged. - E Iron should be a controlled parameter for storm sewers. - M	Several new subclauses have been added to the stormwater section of the Model By-Law which address the discharge of water containing suspended solids, solvent extractable matter, etc. and also which prohibit the discharge of the same hazardous wastes which are covered in Section 2 - Discharges to Sanitary and Combined Sewers of the Model By-law.

SECTION	COMMENTS	MINISTRY RESPONSES
Subsection 3(1) - General Prohibitions and Specific Limitations (continued)	Do the discharge limitations correspond to surface water objectives? - E	The limitations which were the water quality management objectives stated in the Blue Book, November 1984 have been revised. The basis for the revised limitations is presented in the Guidance Manual for the Sewer Use By-law.
	Why is the mercury limit 0.2 µg/litre for storm sewers and 0.1 mg/litre for sanitary and combined sewers? - E	The mercury limit for storm sewers has been revised to 1.0 µg/litre, which is based on the water quality objective for protection of the receiving water. The limit of 0.1 mg/limit for sanitary and combined sewers is based on additional factors such as protection of the sewage works processes and the MOE sludge guidelines, while recognizing the fact that a certain amount of the mercury is removed in the sludge. The basis for this limit is described in the Development Document for Discharge Limits in the Model Sewer Use By-law.
	The word "waste" preceding paints, oils, and pesticides in Section 3(1)(b) may provide a legal loophole and should be removed. - I, M	The word "waste" preceding paints, organic solvents, automotive or machine oils, greases and pesticides in Clause 3(1)(b) has been deleted in each case.
	Section 3(1)(b) prohibits the discharge of waste pesticides to storm sewer. How will waste pesticides be distinguished from pesticides used for their intended purpose? - I	

SECTION	COMMENTS	MINISTRY RESPONSES
Subsection 3(2) - Other	Industrial operations will not comply with this section, especially since residential and public properties may not comply. Therefore, industries may direct stormwater to sanitary sewers. - E The failure to provide specific limits may cause inadvertent contraventions. It may be more reasonable to prohibit the deliberate addition of these materials to the storm sewer. - I	A new subsection 3(3) has been completely reworded to state that certain provisions of Section 3 apply only to stormwater runoff from "industrial process areas" and to stormwater to which matter prohibited by subsection 3(1) has been added for the purpose of disposing of the matter.
	Is an industry or company who spills waste onto a parking lot which is carried to the storm sewer by natural runoff in violation of Section 3? - M	Under the revised Subsection 3(3), any one who adds any of the matter prohibited by subsection 3(1) to any stormwater discharge to a storm sewer for the purpose of disposing of the matter is in violation of Section 3. However, in the case of a spill which goes to the storm sewer, the industry or company would need to comply with the requirements of the new Section 8 in the by-law which deals totally with spills.
	Concerned about enforcement of this section. There will always be problems as long as retail stores are permitted to sell items pertaining to drainage works. - M	To effectively enforce this section of the by-law, the municipality will need to develop a comprehensive inspection and monitoring program for storm sewers. In addition, a public education program may help eliminate problems in the residential sector.

SECTION	COMMENTS	MINISTRY RESPONSES
Subsection 3(2) - Other (continued)	It is unfair targeting non-municipal storm sewer discharge for stringent requirements in µg/L, while providing exemption for other major flows to municipal storm sewers. - I The exemption of stormwater from public, residential, and commercial streets, parking areas, and roof drains is done because these flows cannot meet the proposed standards. It is incongruous and inequitable to suggest that a municipality set standards for storm sewers which major flows from the municipality itself cannot meet. - I Application of surface water quality criteria to industrial stormwater discharge is discriminatory and unfair. The proposed criteria are inconsistent with the Blue Book statement that "it is not practical to treat all effluents so they meet the objective concentrations (discussion of mixing zones). - I Standards for storm sewers are from provincial water quality criteria without provision for mixing zones. Mixing zones are required for farmland runoff, municipal storm sewers, etc. Industry should have the same privilege. - I	A subsection has been added to the by-law which exempts from Sub-section 3(1) any industry which has an approved Best Management Practices (BMP) Plan in accordance with the by-law and is complying with it. The by-law requires the BMP Plan to include specific elements. The actual development of the BMP Plan will be discussed in detail in the Guidance Manual for Sewer Use By-Law.

SECTION	COMMENTS	MINISTRY RESPONSES
Subsection 3(2) - Other (continued)	An exemption should be made for storm-water from paved areas in bulk agencies and in automotive service stations used specifically for vehicle traffic. - I	If these industries have an approved Best Management Practices (BMP) Plan as described in the by-law and they are complying with it, they will be exempt from certain provisions of subsection 3(1). (See previous response).

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 4 - REPORTS	Need legislation to enforce this provision of the by-law. - M	The Ministry believes that the enabling legislation is paragraph 147 of section 210 of the Municipal Act which states a municipality may pass a by-law "for prohibiting, regulating and inspecting the discharge of any gaseous, liquid, or solid matter into land-drainage works, private branch drains and connections to any sewer, sewer system or sewage works for the carrying away of domestic sewage or industrial sewage or both, whether connected to a treatment works or not". Some municipalities are currently obtaining reports similar to waste survey reports under this legislation.
	Why is Waste Survey Report included in the by-law? - M	The Waste Survey Report Form is included to insure uniformity in the type of information which industries will be required to provide to any municipality.
	Waste Survey Report must be submitted by industrial premise, but there is no definition for industrial premise. The by-law should define specifically which industries will be required to complete the report. - M	A list of industry sectors which will be required to submit a completed Waste Survey Report has been added to the by-law, and the appropriate changes to wording in Section 4 have been made.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 4 - REPORTS (continued)	Recommend that the filing of the Waste Survey Report only be required where the industrial user discharges sewage other than domestic sewage. - I	In order for the municipality to have a comprehensive sewer use control program, it needs to initially identify those industries which discharge only sanitary sewage as well as those which discharge industrial sewage. However, completing the Waste Survey Report would be greatly simplified since industries discharging only sanitary wastes would only need to complete Sections 1 through 4 of the Report.
	Are automotive service stations included in the requirement to complete a Waste Survey Report? - I	Automotive service stations are required to complete a Waste Survey Report.
	Are hospitals required to complete a Waste Survey Report? - I	Hospitals are required to complete a Waste Survey Report.
	The Collection of Waste Survey Reports and their monitoring should be the responsibility of the Ministry in small municipalities. - M	This issue will be examined during the development of the sewer use control strategy for Ontario. (See Response under Sewer Use Control Program and Strategy - page 52).
	The Waste Survey Reports including waste characteristics should be public information. - ENV	The information in the Waste Survey Report to which the public shall have access is identified in the Guidance Manual for the Sewer Use By-law.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 4 - REPORTS (continued)	A change of information such as waste characteristics, Reg. 309 Info., or pollutant information should be reported immediately. - M	The Ministry believes that the industrial discharger should be given a reasonable amount of time to convey the information to the municipality. A change in information does not relieve the industrial discharger from complying with all the requirements of the by-law.
	Who does the Waste Survey Report? - I	The Waste Survey Report is to be completed by a representative of the industry.
	Waste Survey Report should be certified by a Professional Engineer of Ontario. - E	Since the information required in the Waste Survey Report is not all engineering-related, it is not necessary to require certification by a Professional Engineer. However, a statement has been added to the Waste Survey Report which is to be signed by an authorized representative of the owner or operator certifying that the information in the Waste Survey Report is correct.
	Sections 4(1) and 4(3) should clarify that the completed report should be submitted to municipality. - M	The wording has been changed appropriately to reflect this comment.
	Section 4(3) should be expanded to require waste dischargers to provide additional information to municipal clerk regarding changes in ownership or address or changes in company directors or officers within 30 days of change - E	A section has been added which requires the industrial discharger to report changes in ownership or address within 30 days.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 4 - REPORTS (continued)	Waste Survey Report should contain section for information on legal status of company such as the type of company (partnership, corporation, etc.), Ontario Incorporation number, and also directors or officers of the corporation. - E Waste Survey Report should contain the location for two company officers with twenty-four hour telephone numbers. - M	The Ministry feels that this information is currently not needed for implementation and enforcement of the by-law.
	Submission of amended Waste Survey Report should only be required when the change will or may cause the discharge to increase in quantity or decrease in quality to prevent submissions for trivial items. - I	The intent of Subsection 4(5) is to submit a Report containing only the information that has changed, and not to submit a total new Waste Survey Report. This information is needed by the municipality to determine if the changes have any impact on the discharge to the sewage works.

SECTION	COMMENTS	MINISTRY RESPONSES
Section 4 - Waste Survey Report Form	Report Form	
	In Section 2(h), "briefly" should be changed to "completely" in the phrase "briefly describe clean-up period activities". - E	The intent of this section is to obtain a quick overview of the clean-up procedures to determine if there are potential problem discharges.
	In Section 7, add a box for fate of residue from pretreatment. - E	The Ministry does not feel that this is necessary, but it may be added at the option of the municipality.
	In Sections 8 and 9, add columns under concentrations for concentration ranges such as trace, 1 to 10 µg/L, 10 to 100 µg/L, 100 to 1000 µg/L. Also, analyses should be required only for parameters of concern. - E	The intent of this section is to obtain an overview of the waste characteristics of the discharge. Either of the known concentrations (if known from actual analysis) or the expected concentrations may be reported as concentration ranges if desired by the discharger. It is the intent that analyses be required only for parameters of concern in the discharge.
	Production rates are confidential. They are not needed if limits are not based on mass loading. - I	The information requested in the Waste Survey Report is not exactly production rate information but rather "production discharge" information. This information is needed by the municipality in order to develop a sampling schedule that would be representative of the discharge from the industry.
	Does the Section 8 form need to be completed for the discharge to each sewer line or to each manhole? - I	Section 8 needs to be completed for the discharge to each sewer line.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 5 - AGREEMENTS	Legal department has expressed concern on legality of "overstrength" agreements. - M	The Ministry believes the enabling legislation is Section 210, paragraph 147 of the Municipal Act. Many cities have been involved in agreements for years with no legal challenge.
	Recommend changing concept that only BOD and SS be permitted by agreement. - M	A new section has been added that states agreements can only be made for the following parameters:
	Are SS, BOD, phenols and SEM of animal or vegetable origin the only parameters covered? - E	• suspended solids • biochemical oxygen demand • phenolic compounds • solvent extractable matter of animal or vegetable origin • Kjeldahl nitrogen • phosphorus
	Will other parameters be considered in agreement? Does the municipality have the decision to accept or reject? - E	This is based on the fact that different sewage treatment plants have different capabilities and capacities for treating the above parameters. Thus, the intent is that each municipality determine based on its STP capability and capacity which parameters are covered in agreements.
	Would ammonia be considered in an agreement? - M	Kjeldahl nitrogen is a parameter which can be covered in an agreement. Kjeldahl nitrogen includes any nitrogen compounds in which nitrogen is in the trinegative state and thus includes ammonia nitrogen and organic nitrogen.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 5 - AGREEMENTS (continued)	Would cyanide be considered in an agreement? - M Agreements should cover metals since metals may be more efficiently handled at municipal STP than at industrial STP. - I	The parameters which can be covered by agreements are pollutants which can be treated and removed from sewage without any effect on the sewage treatment plant processes, effluent, or sludge. Parameters such as cyanide and metals do have an effect on the sewage treatment plant processes, effluent, and/or sludge and may create a situation that contravenes Clause 2(1)(a) of the by-law. Therefore, it is inappropriate to cover these parameters in agreements.
	In agreements which cover grease, there may be problems obtaining representative samples of grease for analysis for the purpose of determining the surcharge. - M	The standard sampling procedures including the appropriate sample container should be used for obtaining a representative grease sample. These procedures will be identified in the Guidance Manual for the Sewer Use By-Law which will be distributed with the by-law.
	Recommend a shorter termination period if the discharge is causing a dangerous condition in treatment plant or causing danger to treatment process. - M	This section has been changed to allow the municipality to terminate the agreement at any time where there is an emergency situation of immediate threat or danger to any person, property, plant or animal life, or waters.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 5 - AGREEMENTS (continued)	Concerned with time limitations for termination in the agreement. There appears to be no factual test, method of appeal, or right of the company to require a determination by an independent 3rd party in the matter of a termination. Recommend that the agreement provide some form of independent testing to substantiate opinion of whatever municipal official is appointed to administer the terms of the agreement. - I	The wording in the agreement has been changed to allow the municipality to terminate the agreement on 30 days written notice if the sewage discharge covered by the agreement is causing contravention of Clause 2(1)(a) of the by-law (or at any time in the event of an emergency situation as described in previous response). Before an agreement can be terminated, it must be documented that the sewage is causing contravention of Clause 2(1)(a) and therefore does not simply rely on the opinion of the municipal official.
	If the company cannot agree with the municipality on a fee to be paid in any one year, the municipality can simply terminate the agreement on ninety days notice. - I	The Ministry feels that if the municipality and a company cannot agree on a fee based on the actual costs incurred for treatment of the wastes, then the municipality should be able to terminate the agreement.
	There is no provision for review and approval of the agreement by the Ministry as operating authority of the sewage treatment plant in some cases - E.	This provision has been added to Section 5 and to the agreement form.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 5 - AGREEMENTS (continued)	If the municipality is permitted to allow a discharger to exceed certain limits as specified in the by-law, how will total loadings to the STP be limited? Accepting monetary compensation for additional operating costs for excessive pollutant loading may not be enough for necessary capital works and operation. - E	The municipality will have the responsibility to sign agreements with the industrial dischargers and to determine the total loadings to the STP from all dischargers with agreements. In conjunction with this, the municipality will have the responsibility to insure that the total loadings for all the parameters covered by agreements do not exceed its sewage treatment plant capacity.
Section 5 - Agreement Form	Agreement Forms	
	Recommend that actual waste strength evaluated by regular monitoring and reflected in quarterly surcharge calculations be used. - M	The current agreement provides flexibility for each municipality to determine which mechanism (i.e. frequency of monitoring, change in waste strength) is appropriate for the determination of surcharges.
	Recommend that instead of "substantial change" in waste strength, use a change in waste strength reflected as a percentage value of the original waste strength. - M	
	In 3rd paragraph, reword "phenolic compound or solvent extractable matter ...". - E	This section has been reworded.
	Section 12(a) and 12(b) should be combined. Sections 12(c) and 12(d) should be combined. - E	The wording of 12(a), 12(b), 12(c) and 12(d) has been changed, but the format, which is appropriate for the agreement, has not been changed.
	Recommend Section 12(a) refer to change in "quantity and/or quality of substances discharged". - I	The Ministry feels the current wording is adequate.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 6 - PROGRAM APPROVALS		NOTE: In the revised model by-law, the program approval has been renamed the "compliance program".
	Municipalities don't have the authority to issue program approvals for treatment facilities which discharge to storm sewers (covered by OWRA). - M	The Ministry believes that the enabling legislation is Section 210, paragraph 147 of the Municipal Act (see 1st response in Section 4).
	Program approvals should not be allowed for discharges directly to a receiving stream. - M	The compliance program mechanism is necessary to provide a reasonable degree of flexibility for the discharger to comply with the provisions of the by-law. The by-law does contain two sections which strengthens the ability to prosecute a discharger who is not complying with the compliance program: (1) a person to whom a compliance program has been issued shall not be prosecuted so long as the compliance program is being fully complied with; and (2) the compliance program may be terminated by the municipality on 30 days written notice.
	Program approvals are a weak instrument for regulatory agency. - E	

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 6 - PROGRAM APPROVALS (continued)	Program approval gives immunity against prosecution. Wording should be included to clearly state that if a company is complying with its program approval but negligently or wilfully discharges into the sewage system at levels above those considered reasonable, an offence has occurred. - E	A compliance program form has been added to the by-law. The compliance program form contains discharge limits for specific parameters. If the company discharges sewage containing parameters in excess of the specified limits, it is a contravention of the compliance program and the by-law.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 7 - GENERAL	Installation of Manhole It may be difficult to implement this requirement. - M Can a City require an existing industry to build sampling manhole? - M Installation of observation and sampling facilities should not be required on retrofit basis unless good reason to believe discharges are causing problem. - I	The Ministry believes that under Section 210, paragraph 147, a municipality can require the installation of manhole. The fact that an alternate facility or device may be substituted when installation of a manhole is not possible should facilitate the implementation of this requirement.
	The requirement for installation and maintenance of manhole should be limited to a specified number of industrial dischargers. - M	A list of industry sectors which may be required to install and maintain a manhole has been added to the by-law.
	Serious financial implications are connected with the installation and maintenance of manhole for each premise. - M	The Ministry agrees. This is the reason that the requirement for a manhole will apply only to a list of specified industries (see above response) whose discharges could potentially violate the by-law.
	There should be calibration requirements for the monitoring equipment which an industry may be required to install. - M	This wording has been changed to read: "The municipality may require ... industrial premises to install and maintain devices to monitor sewage". The requirement to maintain the devices would include periodic calibration.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 7 - GENERAL (continued)	Clauses such as 6(a) and 6(c) of the Metro Toronto by-law referring to sampling and analysis of sewage should be added. - M	Similar clauses have been added.
	The section which provides for the right of entry should be removed and the broader powers contained in the Municipal Act, R.S.O. 1980 should be used. - M	The section granting right of entry has been included to ensure that the by-law itself contains all the elements necessary for an effective sewer use control program even though the enabling legislation is the Municipal Act.
	Definitions for BOD and SS in Section 7 be included in Section 1. - E	The definitions in Section 7 have been moved to Section 1.
	It is not necessary to specifically spell out method number from Standard Methods because these numbers may be changed and the by-law would need to be revised. - M	The method numbers are included to prevent any uncertainty in the analytical method to be utilized for specific parameters.
	Which analytical methods and procedures are approved by MOE? What sample treatment and storage conditions are required? - I	The analytical methods and procedures, and required sample treatment and storage conditions will be discussed in the Guidance Manual for the Sewer Use By-Law.
	Under Section 7(1)(b) the word "measurements" is misleading if it means measurements of flow volume. - M	In this section, the word "measurements" means analytical measurements and not flow measurements.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 7 - GENERAL (continued)	Clarify Section 7(1). - E	Subsection 7(1) has been reworded for clarity.
	Is 1 sample sufficient to characterize waste? Is this supportable in court? - E. One grab sample is statistically and scientifically invalid. - E, I How will Ministry prosecute someone on the basis of 1 grab sample? - E Objects to use of grab samples as a basis upon which to determine effluent limits and rejects view that one-time discharger should constitute offence. - I.	The Ministry believes that "one grab sample" provides a simple and effective means of enforcement. In practice, the municipality would sample several times before the initiation of a prosecution. This issue will be discussed in the Guidance Manual for the Sewer Use By-Law.
	Section 7(1) is redundant and should be removed. - M	The Ministry does not feel that it is necessary to remove subsection 7(1).

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 7 - GENERAL (continued)	What will the "measurement of the flow of sewage" be used for? - E The phrase "not in the ordinary course of events" referring to spills could mean larger or smaller than normal. Municipality would only be interested in spills in which the discharge was much larger than normal. - M	The measurement of the flow of sewage is required for determination of the sewer surcharge fee in an agreement. This phrase not only refers to quantity (larger or smaller amounts) but also to the characteristics or contents of the sewage. Therefore, this phrase is crucial to identify spills of small quantities of hazardous materials, for example.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 8 - OFFENCES	"Absolute liability offences" do away with common law defence of "due diligence". - M Does this section eliminate the defence of due diligence? - E Use of absolute liability should be deleted or replaced by strict liability. - I What does Section 8(2) mean? - M Section 8(2) should read "It is the intention of this by-law that all offences created herein are deemed to be the responsibility of the person who had direct control. - I Fine Schedule Develop a standard fine schedule for province. Develop schedule such as: • $4000 - first offence • $5000 - second offence • $10000 - third offence. - M Develop schedule of fines which pro-rates against volume of effluent or concentration above discharge limits. - M	The subsection stating that all offences are of absolute liability has been removed. The maximum amount of fine for this by-law is determined by the enabling legislation - the Municipal Act. The Municipal Act provides for the imposition of fines of not more than $2000 for someone convicted of an offense under the by-law. Recently, an amendment to the Municipal Act was given 1st reading on December 7,1987, which increases the fines as follows: Individual / Corporation First Offence $ 5,000 / $25,000 Subsequent Offences $10,000 / $50,000 These changes have been appropriately added to the Model Sewer Use By-Law.

SECTION	COMMENTS	MINISTRY RESPONSES
SECTION 8 - OFFENCES (continued)	Section 8 should be changed to reflect each day/separate offence approach set forth in OWRA. - M	This is the intent of subsection 8(1) as written in the current by-law.

SECTION	COMMENTS	MINISTRY RESPONSES
GENERAL COMMENTS	Swimming pool discharges should be specified in by-law because some municipalities may want to control them. - M By-law is specific in its requirements. Is this legally justified? - M	Specific discharges such as swimming pool discharges may be specified in the by-law at the option of each municipality. The specific requirements in the by-law are based on the following objectives: 1. environmental considerations listed in Clause 2(1)(a) for sanitary and combined sewers; and 2. environmental considerations listed in Clause 3(1)(a) for storm sewers. The Ministry believes that these objectives strongly justify the specific requirements.

SECTION	COMMENTS	MINISTRY RESPONSES
GENERAL COMMENTS (continued)	Focus in by-law should be on total loading limits rather than concentrations of contaminants discharged. - E Recommends a loading concept for certain types of industrial or commercial activity. - I The most prudent way to control pollutant discharges is to regulate pollutant loadings. Controlling pollutant concentrations is a philosophy which supports the concept that "the solution to pollution is dilution." - I Consideration should be given to a weight limitation for limited flows. - M	The current focus on concentration limits provides a simple and effective means for enforcement. The use of total loadings is not as practical and effective for determining non-compliance. However, the issue of total loading limits will be addressed in the selection of the optimum sewer use control strategy (see page 52).

SECTION	COMMENTS	MINISTRY RESPONSES
GENERAL COMMENTS (continued)	By-law should include authority to sever a sewer connection in violation of discharge limits. - M	The current legislation does not provide for severance of sewer connections. However, this issue is being evaluated by the Ministry of Municipal Affairs. If the Municipal Act is amended to allow severance of sewer service, this would be included in the by-law.
	By-law doesn't allow municipality to terminate sewer discharge. Why not include provision that allows for a council resolution to empower City staff? - E	
	Legality of severance of sewer service is being reviewed by Province. This topic should be included in by-law if Province amended Municipal Act. - M	
	Will new legislation enable or require a City to cancel existing agreements with industries which were prepared years ago and don't provide effective control or cancellation clauses? - M	The Ministry is not aware of all existing agreements, but is reviewing this issue to determine if the current legislation is adequate.
	Concern that privately owned storm sewers, which discharge directly to a water course, could become subject to two sets of regulations: 1. under MISA for the particular industrial sector; and 2. under the municipality through the sewer use by-law. Recommend that in section 3 exemption be given to private storm sewers controlled under MISA. I	The Ministry position on this issue is that if 2 regulations cover a storm sewer discharge, the more stringent regulation would apply.

SECTION	COMMENTS	MINISTRY RESPONSES
GENERAL COMMENTS (continued)	It is unclear whether individual households are exempt from by-law. Sections 2 and 3 state "No person shall discharge or deposit" while section 6 states ... "the owner or occupant of any industrial premises shall not discharge or deposit ...". - I	Individual households are not exempt from the by-law as indicated by the use of the word "person" in Sections 2 and 3. Sections 4, 5, 6 and 7 specifically contain requirements for industrial, commercial and institutional dischargers.
	Recommend that automotive service stations be exempted from by-law contingent on the provision of oil-solids - water separation facilities which are well designed and constructed, well maintained and well operated. - I	Specific requirements for certain sectors of indirect dischargers may be developed in conjunction with the development of the optimum sewer use control strategy. At the current time, automotive service stations are not exempt from the by-law. The municipality has the flexibility to deal with specific industry sectors as deemed appropriate.
	A paragraph requiring garages, vehicle repair centers, rustproofers, etc. to install and maintain oil interceptors to control grease and oil discharges should be added. - M	
	We understand that Certificates of Approval issued by MOE would override the by-law where conflicts exist, and therefore recommend that this intent be incorporated into the by-law. - I	This interpretation is correct. The Ministry does not believe this needs to be stated in the by-law.
	Any change in by-law should have suitable phase-in period as well as program approval mechanism. - I	The intent of the program approval mechanism is to provide reasonable phase-in periods whenever appropriate. The Ministry believes that the program approval is the only type of phase-in mechanism necessary.

SECTION	COMMENTS	MINISTRY RESPONSES
GENERAL COMMENTS (continued)	The by-law should contain flexibility for dealing with cases such as a minor accidental spill which causes wastewater to exceed by-law limits. In these cases, logging or reporting of spill should be sufficient. - I	A section has been added to the by-law which deals totally with spills. Under this section, anyone who has a spill into the sewer system or storm sewer system must notify the municipality immediately with the appropriate information and submit a report within five days after the spill.
	There is no provision in the by-law to account for contaminants already present in the water supply to a plant. By-law should be based on net discharges. - I	This issue will not be addressed in the sewer use by-law. In general, industries would be using treated water so net loading is not an important issue. However, the issue of net discharge will be discussed in the development of the sewer use control strategy. (See response page 52).
	Proposed by-law will likely be much more difficult to understand particularly without legal expertise. - M	The Ministry is preparing a Guidance Manual for the Sewer-Use By-law which will be distributed with the By-law.
	Water taken from a non-municipal source and wasted to the sewer requires control in order to charge for sewer use. - M	Two sections have been added to Section 2 of the by-law which deal with water taken from a non-municipal source.
	The by-law should define who is authorized to commence prosecution on their behalf. - M	The intent of the by-law is that prosecution be initiated by the municipality. However, this issue will be addressed in more detail in conjunction with the development of the optimum sewer use control strategy for Ontario (see response - page 52).

SECTION	COMMENTS	MINISTRY RESPONSES
Sewer Use Control Program	Sewer Use Control Program and Strategy A. Legislative Requirements The most appropriate mechanism for uniform application throughout province is by incorporation into a general regulation under the EPA. Such a regulation would enable the courts to levy greater fines than municipality can under the Municipal Act. - ENV Ministry should expand the powers of municipalities in the Municipal Act or EPA and be more specific about what a municipality may do. - M B. Enforcement Industry needs to be assured of comparable enforcement of by-law throughout the province. - M, I, ENV There are two alternatives for adequate enforcement of the by-law: 1. MOE could take over monitoring and enforcement from the municipalities. This would require MOE to commit a considerable number of staff to the program.	The Ministry is currently involved in the development of a sewer use control strategy for Ontario. A study is being conductd by M.M. Dillon to evaluate numerous sewer use control options and identify the optimum sewer use control strategy. In conjunction with this evaluation, the Ministry will examine all elements of a sewer use control strategy including: A. Legislative requirements B. Enforcement mechanisms and responsibilities C. Program elements such as pretreatment technology, industrial self-monitoring requirements, etc. D. Resources, costs, and funding and E. Cost effectiveness in removing toxics. The target date for selection of the sewer use control strategy is December 1988.

SECTION	COMMENTS	MINISTRY RESPONSES
Sewer Use Control Program (continued)	2. MOE could designate municipal by-law officers as provincial officers under the EPA. This would require additional MOE staff to train these officers and to maintain the program. A variation of the second alternative would be to have larger municipalities enforce the regulations while MOE would cover the municipalities with insufficient resources. - ENV Enforcement of the by-law is impossible for a small municipality because competently trained staff and necessary equipment are not available. - M Use of provincial officer status for Inspectors would facilitate a fixed fine approach for minor violations and increase authority for on-site inspections. - M C. Program Elements Permit systems should be used whereby new company would only be permitted to connect to sewage system upon submission of a completed survey report and a signed agreement to conform to effluent quality requirements. - M	

SECTION	COMMENTS	MINISTRY RESPONSES
Sewer Use Control Program (continued)	Make it mandatory for all industries to submit detailed analysis of discharges monthly. - M To address the issue of the need for control-at-source versus control-at-STP, requirements for pretreatment of industrial wastes using Best Available Technology need to be incorporated into this latest model by-law. Further, if excessive loadings occur in some receiving waters, it may be necessary to use more than BAT. - ENV Sampling is an extremely costly operation and must be kept to an essential minimum. - I D. Resources and Funding The policing and funds for enforcement of this by-law should be discussed with the Municipal Association. - M	

SECTION	COMMENTS	MINISTRY RESPONSES
Sewer Use Control Program (continued)	E. Other The by-law needs to be substantially changed to be an adequate tool to control industrial discharges at source and to bring about the virtual elimination of persistent toxic substances entering Ontario's waterways. This can be most effectively realized by ensuring province-wide application via mandatory controls stripulated in an EPA regulation, in concert with a well-coordinated and adequately funded and staffed monitoring and enforcement program. - ENV	

SECTION	COMMENTS	MINISTRY RESPONSES
MISA Program	MISA Program Is now the right time for releasing a revised model by-law? Will the by-law be affected by MISA and need to be changed? - E By-law may be superseded by MISA requirements. Should this not be included in bylaw? - E	The purpose of the model sewer use by-law is to "bridge the gap" until the scheduled implementation of the municipal effluent regulations in early 1989, under the MISA program. The revised model by-law has two major purposes: 1. It now contains specific sections to control the discharge of toxic pollutants into sanitary and combined sewers and into storm sewers. This compliments the MISA goal of virtual elimination of toxic contaminants into municipal and industrial discharges into waterways. 2. It provides a mechanism for municipalities to locate and control sources of pollutants in industrial and commercial discharges. Therefore, even though the MISA program will affect specific items within the sewer use by-law, the by-law is a necessary "tool" for the implementation of the MISA program in the municipal sector. It is essential that the crucial components of the by-law be reviewed, evaluated, and modified if necessary, at this time to ensure timely implementation of the MISA program in the municipal sector.

SECTION	COMMENTS	MINISTRY RESPONSES
Sewer Surcharge	Sewer Surcharge	
	Sewer surcharge seems effective at inducing pretreatment of industrial discharges. A separate section on sewer surcharges including how to establish and implement them should be included in the by-law - E.	Two MOE studies, the Sewer Use Control Options conducted by M.M. Dillon Limited, and the Sewer Surcharge and Sewer Use By-Law Study conducted by Ecologistics Limited and Canviro Consulting will be examining the issue of sewer surcharge schemes. Until the results of these studies are reviewed and the optimum Sewer Use Control Strategy is selected, we feel that it is not appropriate to develop an elaborate scheme for establishing and implementing sewer surcharges, but rather, just to include a mechanism in the by-law (i.e., agreement in Section 5), whereby a municipality can implement a sewer surcharge program for certain specified parameters.
	When will the by-law be ready for adoption? - M	The schedule for release of the final model by-law is February, 1988. This schedule is necessary to insure that all comments have been reviewed and incorporated if appropriate into the model by-law.